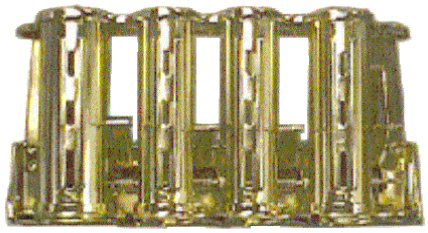

Single Denomination

Bill & Coin Changer

OPERATIONS MANUAL

SERIES AC7502/7505

American Changer Corporation
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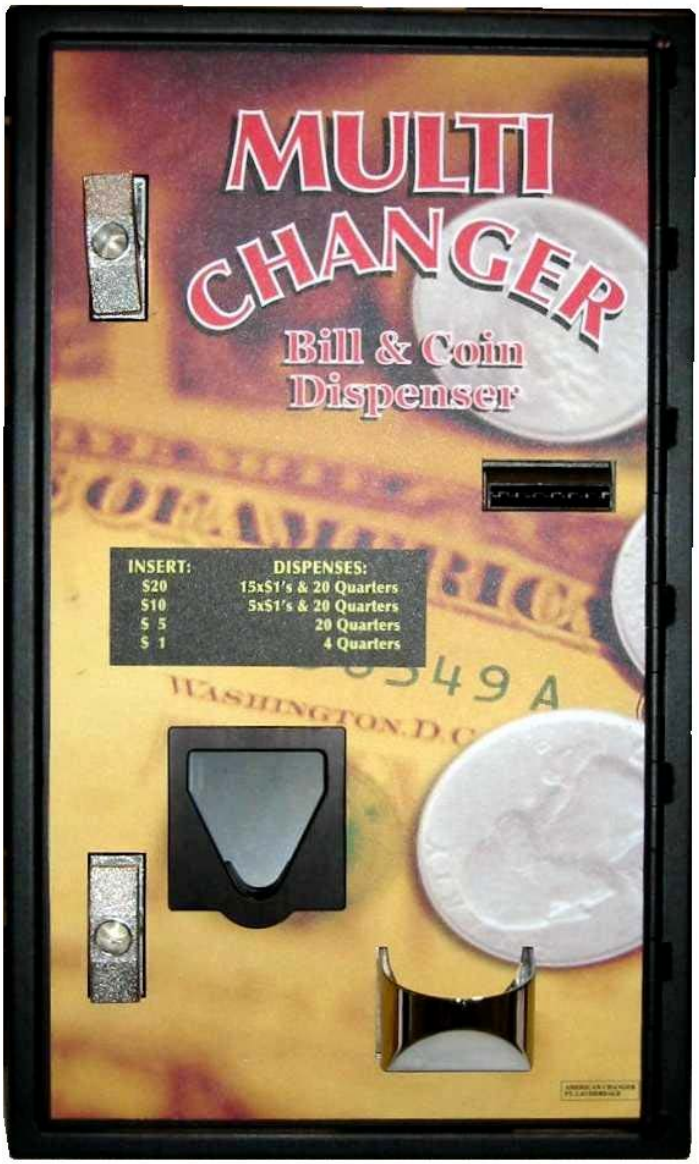


Rev. BBC-50 Jan'04

SECTION A: SET-UP & INSTALLATION
Quick Start Guide _____3
Uncrating & Setup _____4
Filling the Bill Dispenser _____5
Filling the Coin Hopper _____5
Using the Dump Mode _____5
DIP Switches _____6-7
Fuse _____7
Indicator Lights _____7
Mounting instructions _____7-8
Functional Descriptions _____7-8

SECTION B: VALIDATOR INFORMATION
MARS Validator Information _____9
CoinCo Validator information _____14

SECTION C: FUJITSU F-50 BILL DISPENSER INFORMATION
F-50 Sensor locations _____20-24
F-50 Error Code Descriptions _____25-28

SECTION D: MONEY CONTROLS COIN HOPPER INFORMATION _____29-35

SECTION E: TROUBLESHOOTING INFORMATION _____36

SECTION F: PARTS LISTS
Coin Hopper Breakdown _____37
Cabinet Parts Breakdown _____38-39
F-50 Bill Dispenser Breakdown ____40-47
MARS Parts Breakdown _____48-50
CoinCo Parts Breakdown _____51-54

SECTION G: SERVICE CENTERS
Mars Service Centers _____55-57
CoinCo Service Centers _____58

Rev. BBC-50 Jan'04

Specifications

Operating voltage 120 VAC +10/-15 %
Power consumpt.(controller only, add dispenser and validator) 10w
Operating temperature 32 - 130 degrees Fahrenheit
Interface to F-50 dispensers 24vdc & 12vdc 5 amps max.
Interface to Validators 120vac .5 amps max.

Warranty

MEI Mars Validator is warranted two years from time of purchase.
The MATRIX Validator is warranted two years from time of purchase.
CoinCo MAGPRO Validator is warranted for two years from date of purchase.

COVERED

- Defect in workmanship or material

NOT COVERED

- Damage caused by physical abuse.
- Misapplication
- Vandalism
- End users attempt to repair item
- Cleaning maintenance

It is the End User's responsibility to follow cleaning maintenance procedure outline on page(s) 12/18.
Any unit coming in for repair requiring only a cleaning will be charged a flat rate of $65.00 plus shipping and handling.

Dispensing System and Logic Board

The dispensers and logic boards are warranted for one year from date of purchase.

COVERED

- Defects caused by material or workmanship

NOT COVERED

- Damage caused by physical abuse
- Misapplication
- Vandalism
- End Users attempt, on his own to repair
- Cleaning maintenance

A Return material authorization number (RMA #) must be obtained before returning a unit for repair. A copy of invoices must accompany any and all warrantee work.

Attention Please:

THIS MACHINES POWER UP SEQUENCE MAY TAKE A FULL MINUTE! PLEASE WAIT 2 MINUTES AFTER APPLYING POWER BEFORE TRYING TO OPERATE ANY PART OF THE MACHINE.

AC _____ S/N# _____

Tested By _____

Date _____ KEY # _____

Thank You,
American Changer Corp

SETUP WALK THRU:

- Unpack machine, look for shipping damage.
- Unpack Bill dispenser, look for shipping damage. Locate mounting screws for dispenser.
- Mount Machine to the wall, base or inside the wall. (See pages 7-8)
- Ensure DipSwitches on the main logic board are set for your desired payout. (Pages 6)
- Fill the bill dispenser with AT LEAST 100 bills.
- Fill the hopper with AT LEAST 100 coins.
- Plug the machine into a 3-prong GROUNDED outlet.
- Turn on the on/off switch. (Page 6, Figure 3)
- **Operate the machine as normal!**

QUICK NOTES:

- This machine will operate without a coin hopper and dispense bills only. Just remove the coin hopper and turn power back on.
- This mach will operate without a bill dispenser and dispense just coins. Just remove the bill dispenser and turn power back on.
- The out of service LED will come on if there is a bill validator problem. Press the "DUMP" button (Page 7, figure 3). If the error codes starts with:
- A = Bill validator problem
- B = Bill Dispenser problem
- C = Logic board problem
- 000 = Coin Hopper

UNCRATING AND SET-UP

Remove your Series AC7502/7505 dispenser from the shipping box. Open the door. Inspect for any connectors or components that may have been dislodged during shipping. The lock and keys for your dispenser will be inside the manila envelope along with this manual. To install the lock, insert the cylinder into the round hole in the middle of the T-handle and push until it stops. Now turn the key and lock until you hear it "snap." Turn the key counter-clockwise ¼ turn and remove the keys.

NOTE: The only way to get a duplicate set of keys made is to save the red tag that comes between the keys. This ID # starts with "ACC ####".
Write your Key # here "ACC_____".
ALL KEY ORDERS TAKE 4-6 WEEKS!!!

TEST:
Before permanently installing the AC7502/7505, do a functional test to verify that there is no shipping damage to your new dispenser(s).

The dip switches are already set to pay out $5 bills out of the BILL dispenser, quarters from the coin hopper. The bill validator is ready to accept $1 - $5 - $10 & $20 dollar bills.

Machine Setup:

1. It will be necessary to remove the F-50 bill dispenser from the shipping box at this time.

The bracket that supports the Coin Hopper is on the right side of the cabinet. In front of the bracket is 7/16ths nut and locking bracket.

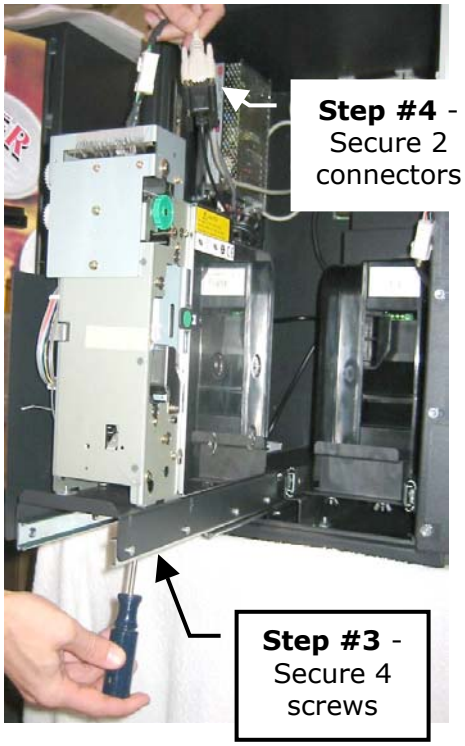
2. Remove the Coin Hopper's nut and locking bracket to allow the hopper to slide in and out of the cabinet.
3. **(SEE FIGURE #1)** Pull the left slide support platform out until it stops. Place the F-50 Bill Dispenser on top of the platform. Locate the 4 METRIC THREADED screws from the F-50's shipping box. Line up the 4 holes on the platform with the treaded holes in the F-50 and tighten down the dispenser with a #2 Phillip's screwdriver.
4. **(SEE FIGURE #1)** Plug the two wire harness connectors coming of the back of the F-50 to the two harnesses in the cabinet. (The RS-232 cable goes to the main logic board and the power harness connects to the stand alone 6A 24Vdc/5VDC power Supply.
5. Fill the F-50 with bills by opening the right side door. The picture on the inside of the door shows the correct way to load the dispenser.

Note: You may dispense "street grade" quality note from this dispenser. This does not mean it will dispense "tissue paper" degraded notes. Please make sure ripped or flimsy bills are removed from the stack before loading! Also ensure that bills will large folded corners are straightened before being loaded for the most trouble-free operation.

6. Push the F-50 platform back into place inside of the machine and pull out the coin hopper platform. If the hopper platform does not come forward you have not remove the shipping bracket as per step #1, take time to do this now.
7. Fill the coin hopper **with at least 100 coins!** The coin hopper will hold up to 2800 coins ($700). Once finish slides the hopper platform back into place. DO NOT replace the shipping lock-down bracket unless the machine will be shipped again!

To begin using the Multi-Changer:
1. Plug the unit into a **GROUNDED** 120vac 3-prong outlet,
2. On the main logic board turn the switch on the bottom right corner "ON". **(SEE FIG. 1 ON PG.3)** *The rocker switch has a "1" and "0" printed on it. When the "1" is pressed down the dispenser is "ON".*
3. Insert a bill into the bill validator and ensure the machine gives the desired change. If not, go to the "Dipswitch Settings" section to set the correct payout options.

FIGURE #1

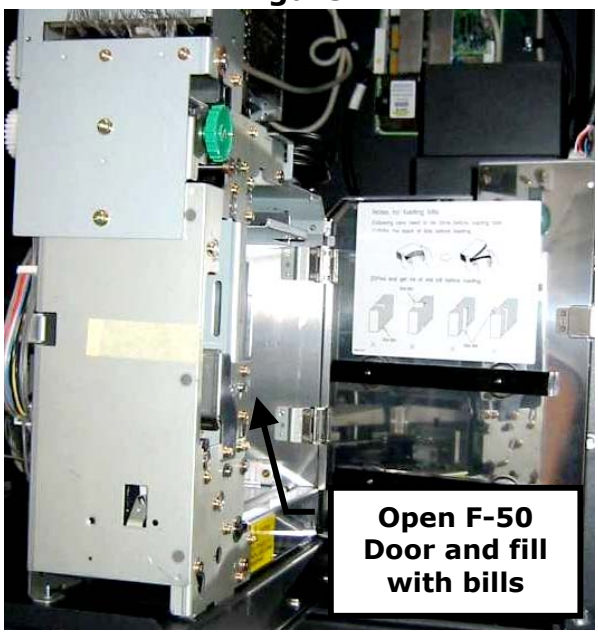


FILLING THE FUJITSU F-50 BILL DISPENSER

When the F-50 dispenser has less than 40 bills left in it the F-50 will finish the payout of bills and switch to the Coin's Only" mode. If the coins are also empty or the machine is being used as a "Bill Dispenser" only, then the red "Empty" LED will light on the front door of the machine. Whenever the "Empty" LED is "ON" the validator is disabled and it will no longer accept bills. If the dispenser is "Empty" (less than 40 bills) *only change is dispensed from the coin hopper*. When that is also empty the red "Out of Service" LED lights on the front door of the machine.

1. Turn OFF the power on the main logic board.
2. Slide the F-50 dispenser forward from the cabinet and open the door on the right side. *There must be at least 50 bills inside F-50 dispenser*. **(Somewhere between 50 and 1000 bills minimum to maximum**.)

Figure 2



3. **Pull back on spring loaded slide until it locks** then place the bills **VERTICALLY** inside the F-50. Take care to ensure as much of a "Brick" format as possible.
4. Pull forward on the slide so it unlocks and close the bill-loading door and slide the F-50 dispenser back into the F-50 dispenser bracket. **Do not use excessive force!**
5. If you have not yet fill the coins proceed to the next section, otherwise
6. Turn "ON" the power switch

FILLING THE COIN HOPPER

When the hopper has less than 100 coins left the AC7500 Series Changer will either switch to a "All Bills" mode or if the bills are also empty then the red "Empty" LED will light on the front of the changer. ***Whenever the "Empty" LED is "ON" the validator is disabled and it will no longer accept bills.***

1. Turn OFF the power on the main logic board.
2. Pull the slide the sliding platform out far enough to reach the opening in the top of the hopper. Insert the coins through the opening on the top. *There must be at least enough coins to cover the two gold plates at the bottom of the hoppers*. **(Somewhere between 160 and 1600 coins minimum to maximum**.)
3. Slide the hopper platform back into the cabinet. **Do not use excessive force!**
4. Turn "ON" the power switch**. After about 1-minute** the "Empty" LED is now off and the bill validator is ready to accept bills.

USING THE DUMP MODE TO EMPTY THE HOPPER

1. Open the cabinet door.
2. Turn OFF the POWER switch.
3. Place a suitable container in front of the hoppers to catch the coins.
4. Press and hold the "DUMP" button on the upper right corner of the Main Logic Board. Turn ON the Power switch. The red LED numbers on the main logic board will come on all "00000's". Once the red "00000's" lights up the SECOND time, release the "DUMP" button. If it is not released within one second, the "DUMP" mode is canceled as a security feature.
5. The hoppers will dispense coins until the POWER switch is turned OFF. If the red LED numbers are not counting up rapidly on the Main Logic Board's display the dump mode was not accessed. Please try again.

DIPSWITCH SETTINGS

The AC7502/7505 series dispenser is capable of dispensing $1 or $5 or $10 or $20's. Setting the bills out per dollar is controlled which turns "ON" Dipswitches on both banks. (Refer to **Figure#3** for their location.) For example, if Left Dipswitch Bank switch #'s are: 5 "ON" AND the Right Bank switch #'s are: 2 – 3 - & 5 "ON", your payouts will be:

Coins out of coin hopper – **QUARTERS**
Bill type out of F-50 - **$5 BILLS**
Change given - $5 in quarters, the balance left paid in $5 bills. (I.e. for a $20 inserted = $5 in quarters + 3 - $5 bills.)

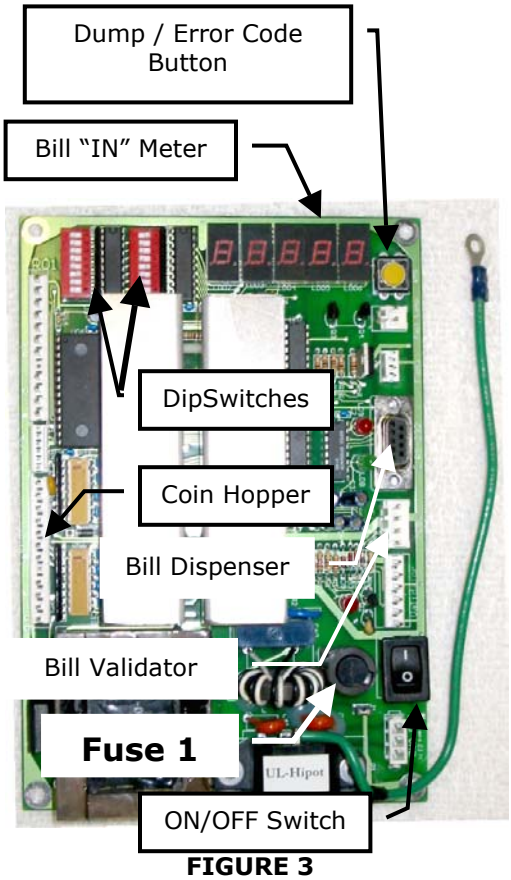


FIGURE 3

(THIS IS NOT THE DIPSWITCH BANK FOR SETTING THE BILL DENOMINATIONS THAT THE COINCO ACCEPTS.
(For those dip switches go to page 12.)

DIPSWITCH SETTINGS:

LEFT SIDE:

SWITCHES: #1-#2-#3-#4 ARE NOT USED!

Switches #5 & #6 are to set type of COINS dispensed from the coin hopper.

To use the machine as a "Bill Dispenser" only leave switches #5 & #6 "OFF".

To Vend "Quarters or .25 Tokens" out of the coin hopper turn switch **#5 "ON" & #6 "OFF".**

To Vend "$1 coins or $1 Tokens" out of the coin hopper turn switch **#5 "OFF" & #6 "ON".**

To Vend "$2 coins or $2 Tokens" out of the coin hopper turn switch **#5 "ON" & #6 "ON".**

Left side dipswitches #7 & #8 are not used!

RIGHT SIDE:

Switches #1 & #2 are to set type of BILLS dispensed from the bill dispenser.

To Vend **$1 bills** from the dispenser turn switches **#1 "OFF" & #2 "OFF".**

To Vend **$5 bills** from the dispenser turn switches **#1 "ON" & #2 "OFF".**

To Vend **$10 bills** from the dispenser turn switches **#1 "OFF" & #2 "ON".**

To Vend **$20 bills** from the dispenser turn switches **#1 "ON" & #2 "ON".**

Switches #3-#4 & #5 are to set how many dollars in change/tokens you wish dispensed. The balance will be dispensed in bills.

If you are using this machine to dispense bills only set these dipswitches to all "OFF"!

*If you are dispensing **$1 bills** from the bill dispenser, the amount of coins dispensed will be:*

Switch	#3	#4	#5
$1 in coins	ON	OFF	OFF
$2 in coins	OFF	ON	OFF
$3 in coins	ON	ON	OFF
$4 in coins	OFF	OFF	ON
$5 in coins	ON	OFF	ON
$6 in coins	OFF	ON	ON
$7 in coins	ON	ON	ON

*If you are dispensing **$5 bills** from the bill dispenser, the amount of coins dispensed will be:*

	Switch **#3**	**#4**	**#5**
$5 in coins	ON	OFF	ON
$10 in coins	ON	ON	ON

*If you are dispensing **$10 bills** from the bill dispenser, the amount of coins dispensed will be:*

	Switch **#3**	**#4**	**#5**
$10 in coins	ON	ON	ON

*If you are dispensing **$20 bills** from the bill dispenser, the amount of coins dispensed will be:*

	Switch **#3**	**#4**	**#5**
$20 in coins	ON	ON	ON

Right side dipswitches #6-#7 & #8 are not used!

-END LOGIC BOARD DIPSWITCH SECTION-

FUSE

High voltage fuse: This is the primary transformer AC fuse for the main logic board and the validator. Any direct short of the Transformer or validator will cause this fuse to blow. Replace this fuse with a 2-½-amp GMA fuse only. ***REPLACING THIS FUSE WITH ANYTHING OTHER THAN A 2 ½ AMP "AS" MAY RESULT IN A FIRE OR AN UNSAFE WORKING CONDITION!!*** (See fig. 3 for location of this fuse.)

Indicator Lights

Main Logic Board:

1. Green LED on, AC power applied to the logic board. All fuses are good.
2. Red LED
   A. Heartbeat - 5 and 12vdc present. The dispenser is in standby waiting for a bill pulse.
   B. On Steady - Out of service, F-50 dispenser error detected.

Validator logic board:

1. Red LED
   A. On Steady - Standby Mode, waiting for bill insertion.
   B. Flashing - Error mode, go to page for error code information.
   C. Off - The dispenser "Empty" LED is lit.

MOUNTING THE AC7502 TO A WALL

IF YOU ARE UNSURE IN ANY WAY IN PROCEEDING WITH THE FOLLOWING STEPS, PLEASE HIRE A LOCAL PROFESSIONAL ELECTRICIAN TO MOUNT YOUR CHANGER FOR YOU!

Special Note: A professional contractor should do mounting of any AC7505 THROUGH a wall. American Changer cannot help you in this procedure.

1. Disconnect any and all AC power going to the series AC7502 changer. (See fig. 1)
   A. Unplug the AC line cord from the bottom of the board.
   B. Unplug the validator connectors on the right side of the board.
   C. Unplug the hoppers harness connectors on the left side of the board.
   D. Unbolt the ground wire from the right side of the cabinet.
   E. Remove the main logic board and bill dispenser from the inside of the changer.
   F. Put the nuts back on the studs to avoid losing the brass spacers on the studs.
2. Slide the dispenser out of the cabinet.
3. Note: You will need to verify with the building code that it is allowable to plug the changer into a 3 prong grounded outlet. If it is not, there must be 120VAC run through conduit to the changer. If it is not required, proceed to step #6.
4. Let the electrician run the conduit, install the new breaker, wire and help decide how the wiring will enter the changer (from the back or the bottom). This will affect the mounting location.
5. After the conduit has been installed, proceed with the mounting.
6. Locate the 4 punch-outs on the back wall of the changer. Using a screwdriver and hammer knock the punch-outs out by hitting them from the inside of the changer.
7. Using a stud locator, find a location to hang the changer by locating the wall studs.
8. Find an appropriate wall to bolt the changer into. The wall should have studs or be constructed of concrete. Consult a professional with any questions you may have.
9. ***NOTE: HANGING THE CHANGER FROM LESS THAN ALL 4 HOLES MAY BE DANGEROUS. EACH HOLE NEEDS A BOLT THROUGH EACH ONE MOUNTED SECURELY TO THE WALL. MOUNTING THE CHANGER IN ANY OTHER WAY MAY RESULT IN THE CHANGER BEING TORN OFF OR FALLING OFF THE WALL RESULTING IN PERSONAL OR CUSTOMER INJURY ALONG WITH ELECTRICAL SHOCK.***
10. Choose a height to mount the changer keeping in mind that a handicapped person in a wheelchair should still be able to insert a bill into the bill validator. (We recommend no higher than 4 feet above the ground.)
11. Have someone hold the changer against the wall while someone else marks the holes.

CAUTION: ***THE CHANGER WEIGHS 125 POUNDS DO NOT EXERT YOURSELF SO THAT YOU MAY CAUSE AN INJURY.***

12. ***BEFORE DRILLING THE FOUR MARKED HOLES ENSURE THAT THERE ARE NO ELECTRICAL WIRES, TELEPHONE LINES, GAS, OR WATER LINES BEHIND THE WALL WHICH DISRUPTING MAY CAUSE A LOSS OF LIFE OR PERSONAL INJURY!***
13. Hold the changer back up to the wall. Thread and tighten bolts.
14. Verify that the machine is securely mounted.
15. Reinstall the main logic board.
    A. Before installing the main logic board, verify that the plastic safety-insulating sheet is still against the back wall where the board will be mounted and that there is a 3/8" spacer on each stud.
    B. Install the main logic board and properly tighten the nuts.
    C. Re-bolt the ground wire into the right side of the cabinet.
    D. Plug the validator connector into the right side of the board.
    E. Plug the hoppers harness connectors into the left side of the board
16. If the changer is permanently connected through a conduit, proceed to step #18.
17. Feed the AC line cord out the bottom or the back of the changer then perform the following.
    A. Connect the AC line cord into the bottom of the main logic board.
    B. Plug the male end into the AC wall outlet. ***Do not use an extension cord unless allowed by the building electrical code***.
    C. **Important:** Attach the line cord clamp to the line cord. Verify it is at the right length and that the line cord is not rubbing against any sharp edges or is being strained in any way. Then mount the line cord clamp to the studs at the hole. Tighten securely. Installation is finished and you can proceed to the "Filling the Hopper" section.
18. In order to continue you will need to purchase electrical cable conduit, a standard 3-prong AC wall outlet and 12-gauge wire. We highly recommend HIRING a qualified electrician to perform the following!
    A. Install the conduit box on the conduit entering the cabinet in the lower right side of the cabinet.
    B. Secure the 3 wires (hot, neutral, and ground) to the AC wall outlet and the ground wire should also be directly attached to the cabinet ground terminal.
    C. Connect the AC line cord into the bottom of the main logic board.
    D. Plug the male end into the AC outlet just installed.
    E. Properly fold the line cord to avoid sharp corners and any other damage.
19. Proceed to the "Filling the Hoppers" section.

Functional Description of the Series ACAC7502/7505 Dispenser

To follow along with this walk-through of your Bill Dispenser, fill the F-50 dispenser with bills, coin hopper is filled with coins and turn the main logic board "ON".

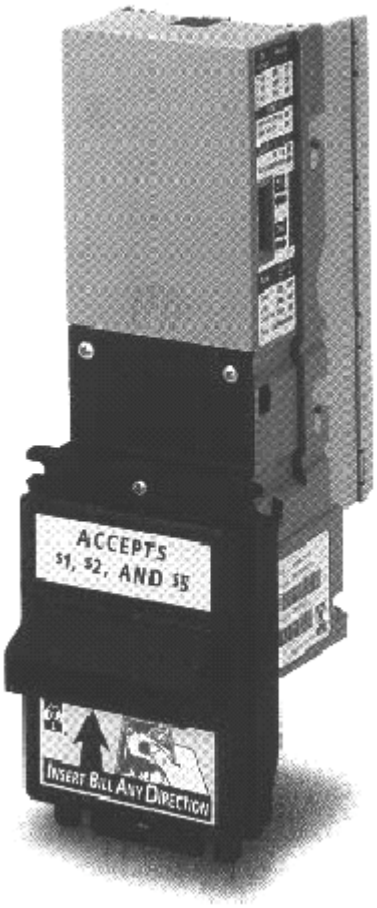
NOTE: THE METER ON THE MAIN LOGIC BOARD CANNOT BE RESET TO ZERO!!!

Functional Descriptions of Out-of-Service Conditions

Out-of-Service conditions occur for the Series AC7502/7505 dispenser for the following reasons; low bills, F-50 dispenser fault error, validator fault, or a blown fuse.

1. **Blown Fuse**: an AC power spike in line voltage or a bad transformer on the main logic board can cause A blown fuse on the main logic board. If either fuse blows the indication is the green LED on the main logic board will not light.
   A. Replace the fuse. If the green LED now lights then there was a spike.
   B. If it does not and the fuse blows again the power transformer is shorted. To test the transformer use a voltmeter set for ohms and measure across the primary (40ohms) and the secondary (1.5ohms).
2. **F-50 dispenser Fault**: A F-50 dispenser fault can either be a jammed F-50 dispenser, a blocked bill counting optic or a bad F-50 dispenser logic board.
   1. An indication for a jammed F-50 dispenser is an error code displayed on the front of the machine. This code will have the following format, "b0001 or b0002". At this point the three options open are to attempt repair on your own, call your distributor, or return the F-50 dispenser to American Dispenser.
3. **Validator Fault**: When a validator fault occurs the validator's EPROM shuts down the validator and flashes an error code via the red LED on the validator logic board. When there is no error this LED is on steady.
4. **Low Bills**: The low bill condition is probably the most common fault (b0000). The EPROM on the main logic board is constantly checking for low bills in the F-50 dispenser.

MARS AE2602

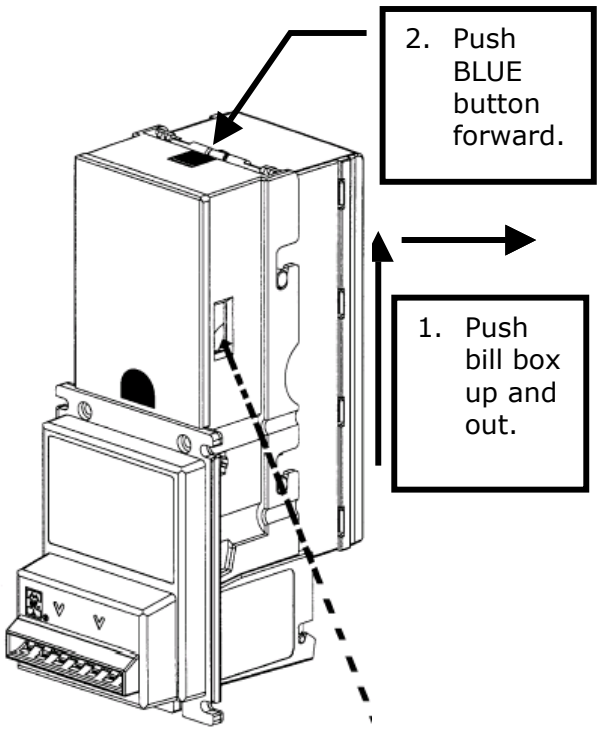


BILL ACCEPTOR
24VDC $1-$20

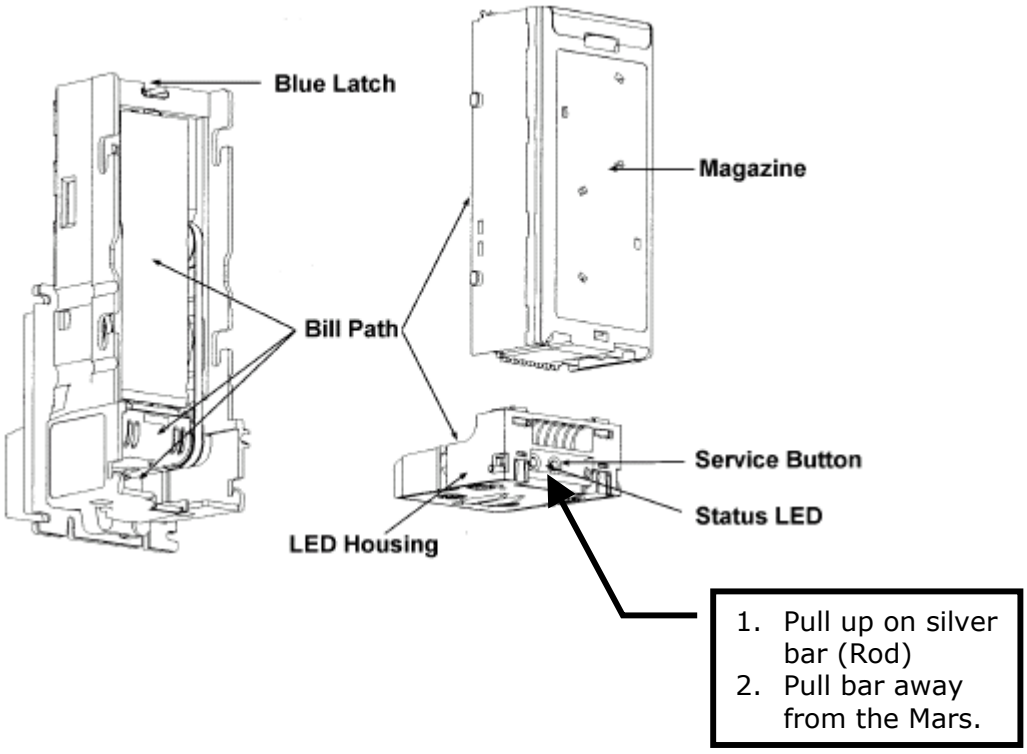
MEI MARS AE2602 VALIDATOR SECTION

	PAGE
Removing the Bill Box	10
Clearing a bill jam	10
Setting the bill types accepted	11
Cleaning the Validator	12
Trouble Shooting & Trouble Codes	13
Coupon Programming (Dip Switch)	13

Removing the bill box



Clearing A Bill Jam

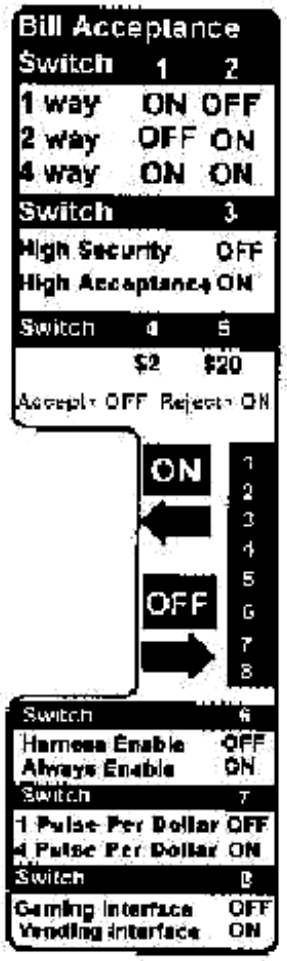


Setting the Dip Switches

			Factory Default
Switch 1	Switch 2		
ON	OFF	1 Way Bill Acceptance	
OFF	ON	2 Way Bill Acceptance	X
ON	ON	4 Way Bill Acceptance	
Switch 3*			
OFF	High Security		X
ON	High Acceptance		
Switch 4			
ON	Rejects $ 2 Bills		X
OFF	Accepts $ 2 Bills		
Switch 5			
ON	Rejects $20 Bills		
OFF	Accepts $20 Bills		X
Switch 6			
ON	Always Enable		
OFF	Harness Enable		X
Switch 7			
ON	4 Pulse Per Dollar		
OFF	1 Pulse Per Dollar		X
Switch 8**			
ON	Vending Interfaces		
OFF	Gaming Interfaces		X

* Switch 3 affects all denominations. See Coupon Configuration on page xx for individual acceptance/security enabling options.

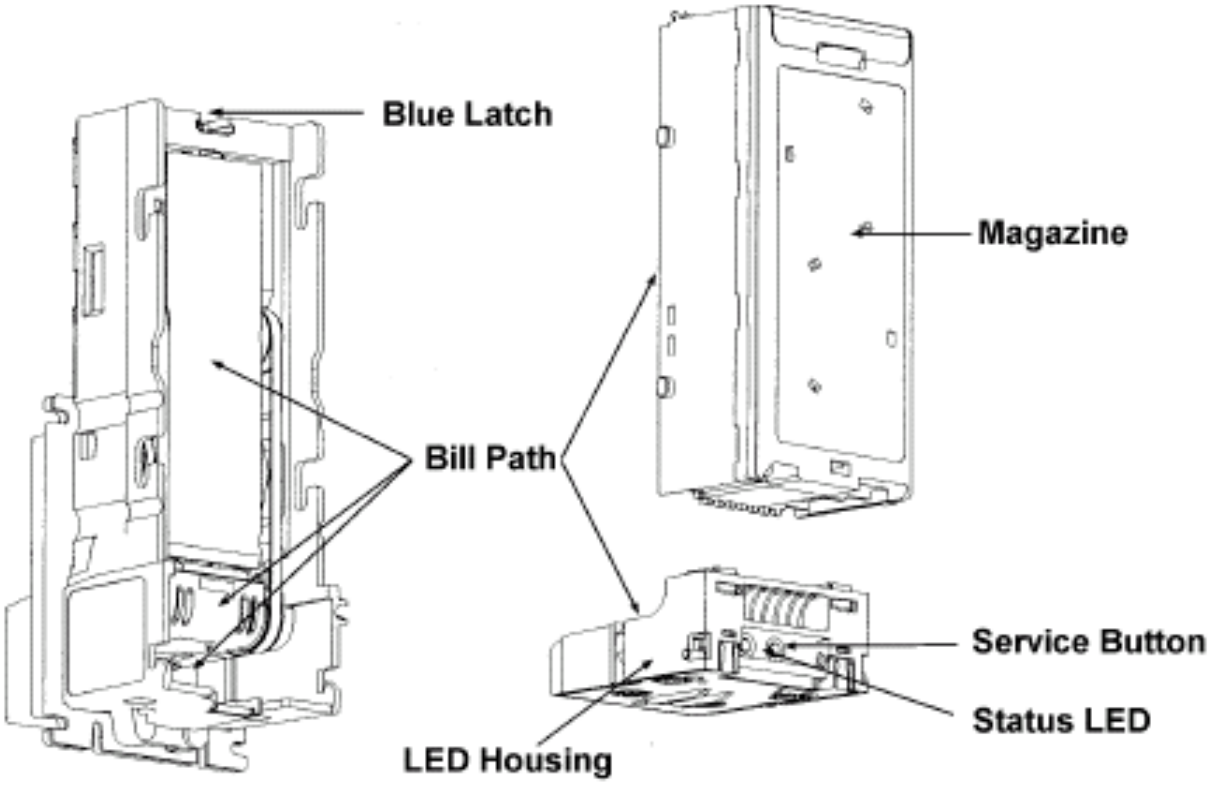
** The AE2600 defaults to short pulse.



Cleaning

You can clean the bill acceptor while it is still mounted in the machine.

1. Remove power from the machine.
2. Unlatch the magazine by pushing the blue latch (located on the top of the unit) toward the front of the unit.
3. Unhook and remove the magazine by holding the latch and lifting up and then back on the magazine.
4. Unlatch the LED Housing by lifting up on the metal bar (located below the Status LED).
5. Remove the LED Housing by holding the metal bar and pulling back on the LED Housing.
6. Clean the bill path with a soft cloth. You may use mild, non-abrasive, non-petroleum based cleaners if sprayed on the cloth.



Trouble Codes

Status LED
A Status LED provides assistance in diagnosing the condition of the Series AE2600. The following is a description of the LED codes, their meanings, and suggested remedial actions.

LED ON - Indicates that the unit is enabled and ready to accept a bill.
No action is necessary.

LED OFF - Indicates that no power has been applied to the unit.
Check to ensure that power is applied.

1 Flash - Indicates that something is obstructing the bill path.
Remove the magazine and LED housing. Inspect for foreign material.

2 Flashes - Indicates that the unit is not enabled.
Verify configuration. Check the dipswitches.

3 Flashes - Indicates that the bill path needs cleaning for optimum performance.
Remove the magazine and LED housing and follow cleaning instructions (page 29) to clean the bill path.

4 Flashes - Indicates that something is obstructing the bill path.
Remove the LED housing and look at the bill path on the housing and inside the unit for foreign material; clean as necessary.

5 Flashes - Indicates that the magazine is removed (the unit will not accept without the magazine attached).
Reinstall the magazine.

Continuous Slow - Unit is defective.
Replace the unit.

Continuous Fast - The magazine is full of money.
Remove the money from the magazine.

Coupon Programming

1. Locate the **service button** on the back of the unit (Page 29).
2. Press the button once to enter the coupon setup mode. Pressing again will exit the mode. The unit will automatically exit coupon setup mode upon acceptance of the coupon configuration.
3. The LED Status indicator (located to the left of the service button) will flash rapidly indicating that the unit is in coupon setup mode.
4. Insert the coupon marked-side up. The AE2600 will pull the coupon in, read it, and then return it to the user. A good coupon will be returned immediately. After the coupon is pulled from the bill acceptor mouth, the unit will flash the Status LED ten times to confirm a good configuration. A bad coupon will be held for ten seconds before being returned. This delay is to make you aware that there is a problem with the coupon. When the coupon is pulled from the bill acceptor mouth, the unit will flash the Status LED the number of times corresponding to the section of the coupon wherein a problem lies. For example, if the problem is in section five, the LED will flash five times. Section numbers are located to the far right of each section on the coupon.
5. If the configuration is rejected, check the coupon and repeat the process.

MAG
BILL ACCEPTOR

Operation and Service Manual

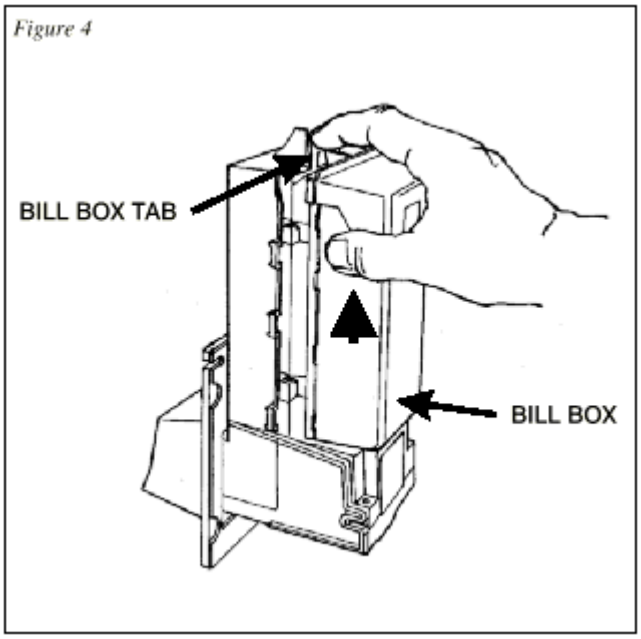
coinco

COINCO MAG50B VALIDATOR SECTION

	PAGE
Removing the Bill Box	15
Clearing a bill jam	15
Setting the bill types accepted	16-17
Cleaning the sensors	17-18
Cleaning a salted unit	18
Replacing the belts	19

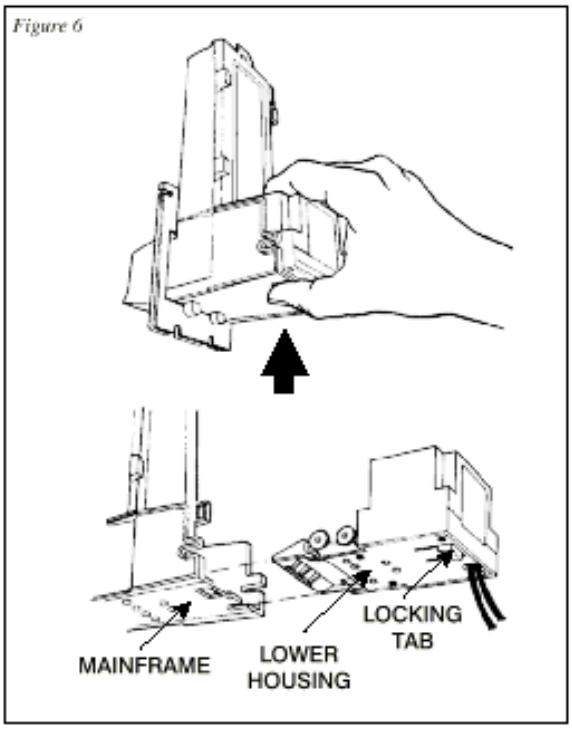
Removing the bill box.

To remove the 1000 bill stacker from the CoinCo validator follow the picture below.



REMOVING A BILL JAM

From time to time a foreign object or ripped bill will become caught in the validator. Follow the picture below to remove the item.



SETTING THE BILL ACCEPT DIP SWITCHES

Figure 1

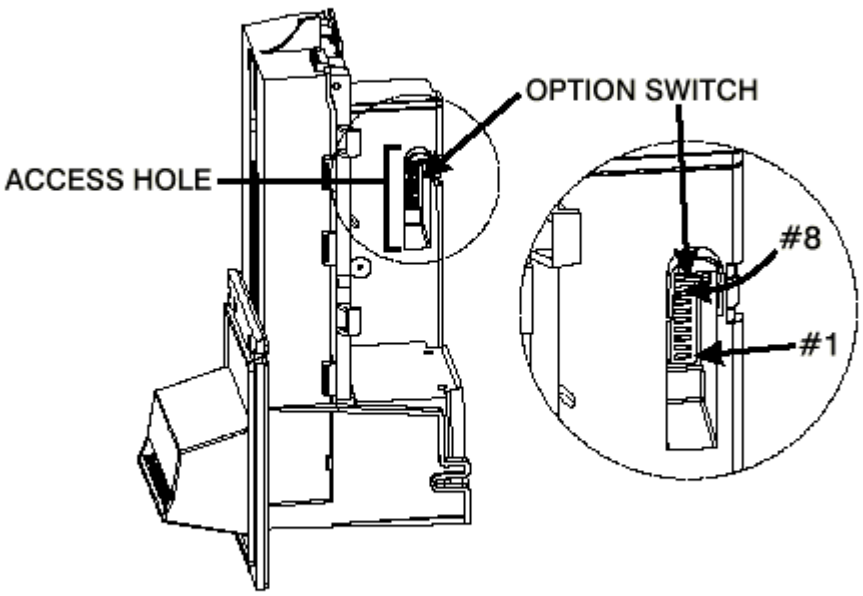
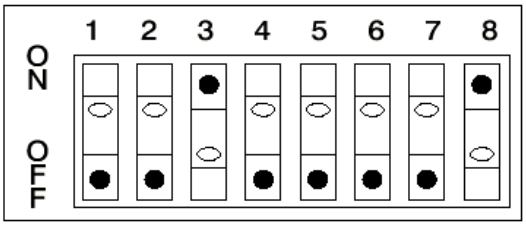


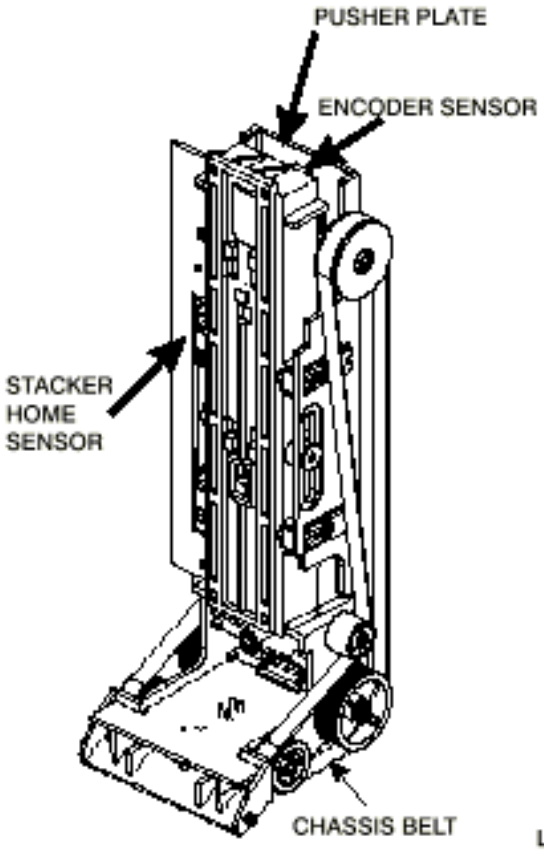
Figure 2

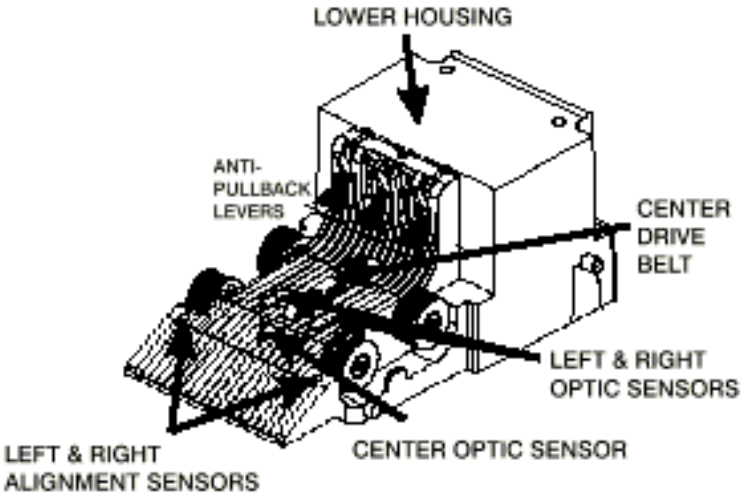


SWITCH	ON	0
1	High Security	Standard Acceptance
2	Accepts bills in one directions only (face up, green seal first)	Accepts bills in both directions (face up)
3	Serial or Parallel Interface	Pulse Interface
4	$20 Accept	$20 Reject
5	$10 Accept	$10 Reject
6	$5 Accept	$5 Reject
7	$2 Accept	$2 Reject
8	$1 Accept	$1 Reject

CLEANING THE BILL VALIDATOR

Refer to the pictures and the procedure on the next page to clean the bill validator every 4-6 months.





MAGPRO CLEANING: IF ANY OF THESE PROCEDURES ARE PERFORMED TO YOUR VALIDATOR AFTER IT IS RETURNED UNDER A WARRANTY REPLACEMENT, YOU WILL BE SUBJECTED TO A $65.00 LABOR FEE.

CLEANING AND MAINTENANCE:

Note: *Petroleum-based cleaners and freon-based propellants can damage plastic and some electronic components. Scouring pads and stiff brushes may harm the protective conformal coating on the circuit boards and can mar the plastic. These items should never be used when cleaning the MAGPRO bill acceptor.*

The MAGPRO should be cleaned every 7,000 bills or every 4 -6 months (or as needed, depending on the environmental conditions of the location). Dust can be removed with a soft brush or cloth or it can be blown out using compressed air.

Procedure:

1. Disconnect power from the bill acceptor.
2. Remove the bill box and use a soft cloth to wipe the dust from around the intermediate frame and stacker plate.
3. Remove the lower track.
4. Using compressed air or a soft brush, blow or brush the dust off of the optic sensors and out of the recessed sensor openings.
5. Remove dust from around the belts and wheels on the lower housing and the sensors on the upper sensor board. The upper sensors are located directly above the lower housing sensor when the lower housing is installed.
6. The bill path can be cleaned to remove further dirt and oil using a soft cloth moistened with a mild soap and water solution.
7. Clean the magnetic head using a swab and isopropyl alcohol.
8. Once the lower housing is dry, place it back into the mainframe so that the tab on the bottom locks into place.
9. Blow the dust out of the encoder wheel and its sensors. (It may be necessary to extend the stacker plate to access the encoder wheel. Supplying power to the unit momentarily can do this, so that the stacker plate extends.)
10. Remove dust from the transport belt areas and from any other places of build up.
11. Remount the bill box.
12. Apply power and insert bills to verify that the unit is functions property.

MAGPRO CLEANING PROCEDURE FOR SALT WATER POLLUTED UNITS:

Note: *Petroleum-based cleaners and freon-based propellants can damage plastic and some electronic components. Scouring pads and stiff brushes may harm the protective conformal coating on the circuit boards and can mar the plastic. These items should never be used when cleaning the BA30 bill acceptor.*

Procedure:

1. Remove power from the bill acceptor.
2. Remove the bill acceptor from the vending machine.
3. Open the bill box lid and verify that the stacker plate is in the stand-by/home position. If it is not in the home position, apply power and observe that the stacker plate returns home.

Warning: *If moisture is present, allow the unit to dry thoroughly before applying power to avoid possible shock hazard. If the stacker plate does not return to the home position, remove power and carefully remove the bill box to avoid damaging the bill box and/or stacker plate.*

4. Remove the lower housing.
5. Remove the bottom cover from the lower housing.
6. Run hot water (1101/4-1401/4F) over the lower housing from the top and bottom. Using a soft brush, gently clean any residual salt. Use a soft absorbent cloth to clean any residue off the lower housing. If the transformer gets wet, allow the unit to dry for 24 hours before applying power.
7. Remove the front mask. Using hot water and a soft brush, clean the front mask, upper sensor board, main frame anti-pullback levers and position sensor mount.

Caution: The motors are not protected from water, therefore the unit must be held in a manner that prevents water from running over the intermediate frame crossbar.

8. Remove the position sensor cover on the crossbar and carefully lift the LED from its mount. (Early models only.)

Caution: Protective coating on the LED leads should not be damaged. Clean all salt residue from the mount, sensor hole and detector area.

The detector can be seen through the sensor hole, and is located in the chassis. Replace the position sensor cover. (Early models only.)

9. Verify that the anti-pullback levers move freely and that the spring returns them to their open position.
10. Allow the unit to dry thoroughly.
11. Clean the magnetic head using a swab and isopropyl alcohol.
12. Replace the front mask
13. Replace the lower housing cover.
14. Replace the lower housing into the main frame.
15. Remount the bill box.
16. Apply power and insert bills to verify that the unit is functioning properly.

6 OR 7 ERROR CODE FLASHES

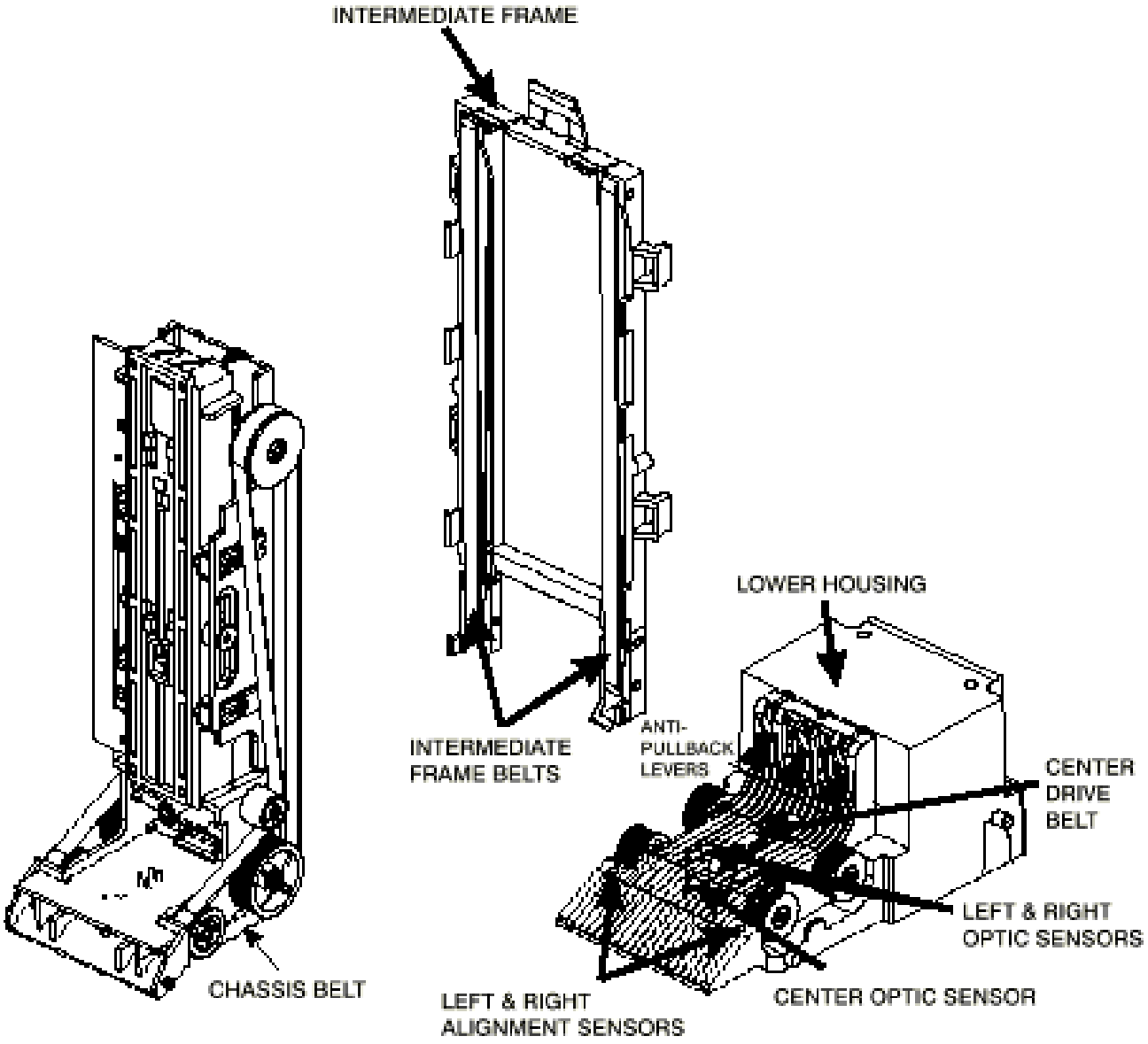
The cleaning procedure for this common occurrence is listed below. Just follow these steps.

1. If this code has occurred on a new machine or one that the validators DIP switches were just changed, Ensure that all the white plugs on the side of the validator board away from the red LED are plugged in securely.
2. Remove the bill box.
3. Turn the Changer ON then OFF in an attempt to stop the metal push plate so that it COASTS into the fully outward position.
4. Using an air compressor or a can of compressed air blow out the area behind the push plate until it is completely free of all dust and lint.
5. Turn the changer power back on so that the push plate returns to the inward position. If the same error code persists, repeat steps 1 - 3 concentrating on the top center area behind the plate.
6. Replace the bill box.

7.

REPLACING THE BELTS

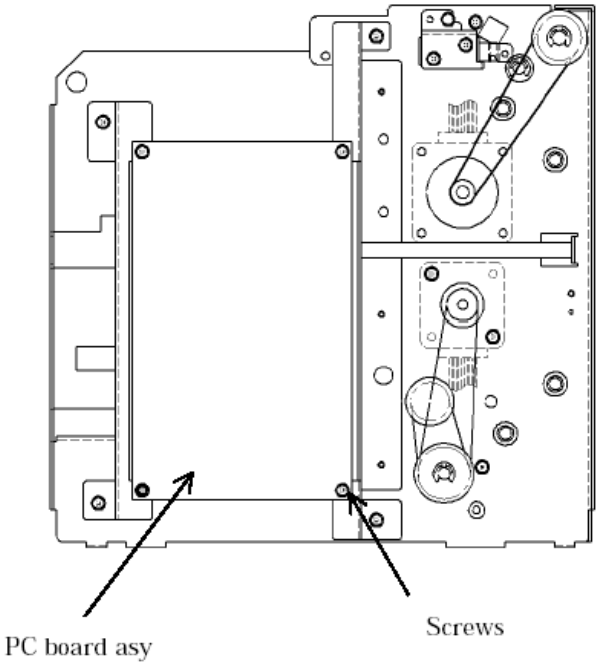
Every 2-3 years the belts on the CoinCo will wear out. To replace them, remove the validator components down to the picture show. Refer to the parts diagram at the end of the manual for help getting to this point.



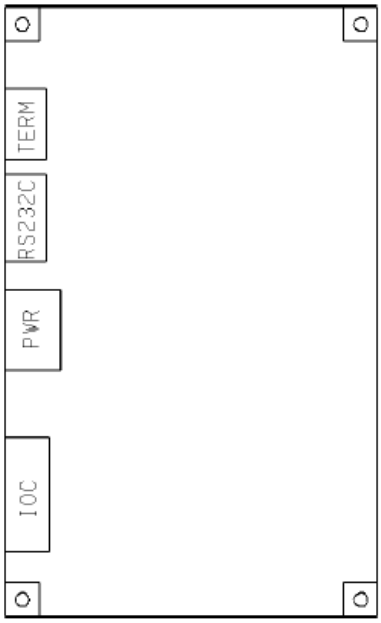
FUJITSU F-50 DISPENSER DESCRIPTION

2. F50-BDU DISPENSER MAINTENANCE

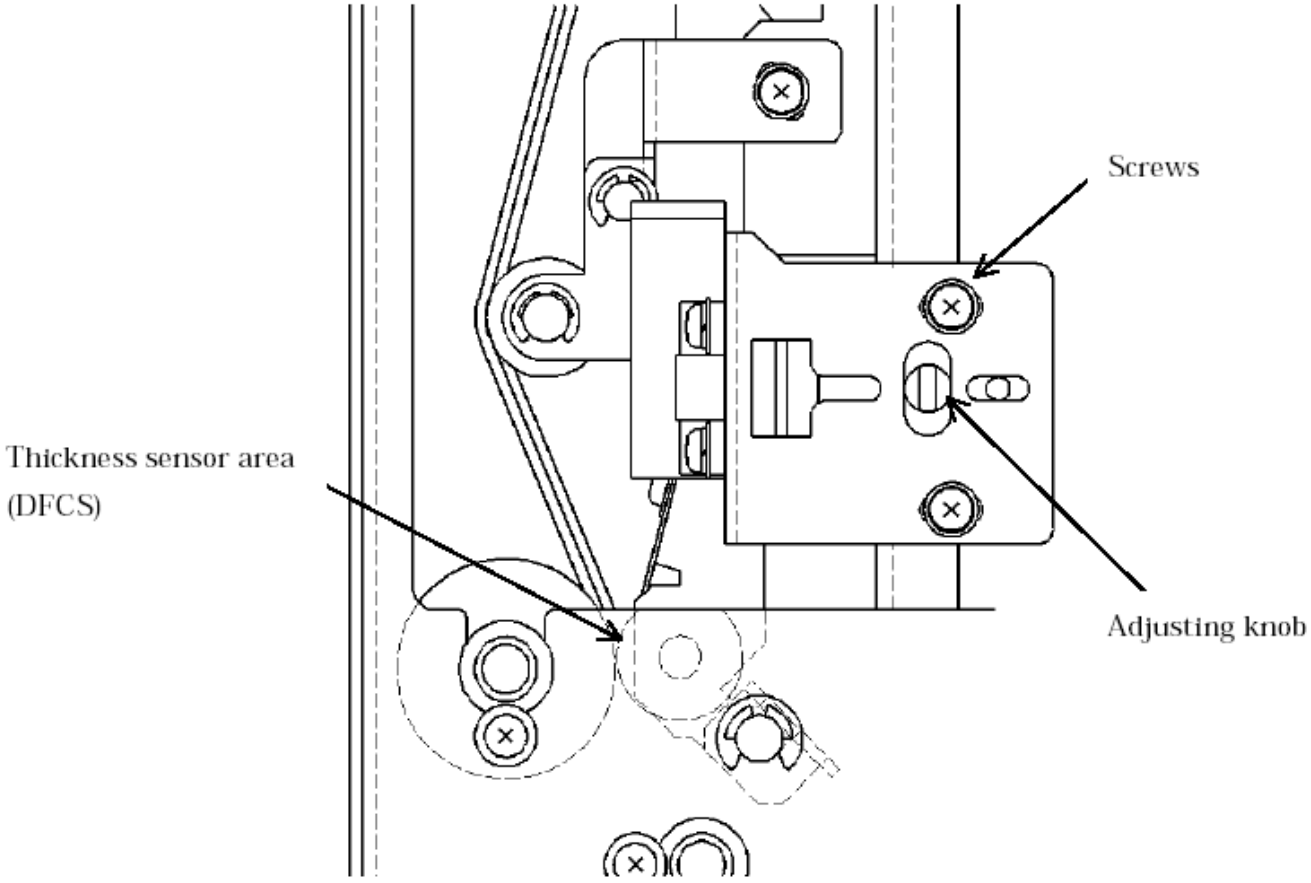
2.1 Replacing the PC Board



Unplug all conectors from PC board, and unscrew the screws and remove PC board from the unit.



2.2 Adjusting the thickness sensor

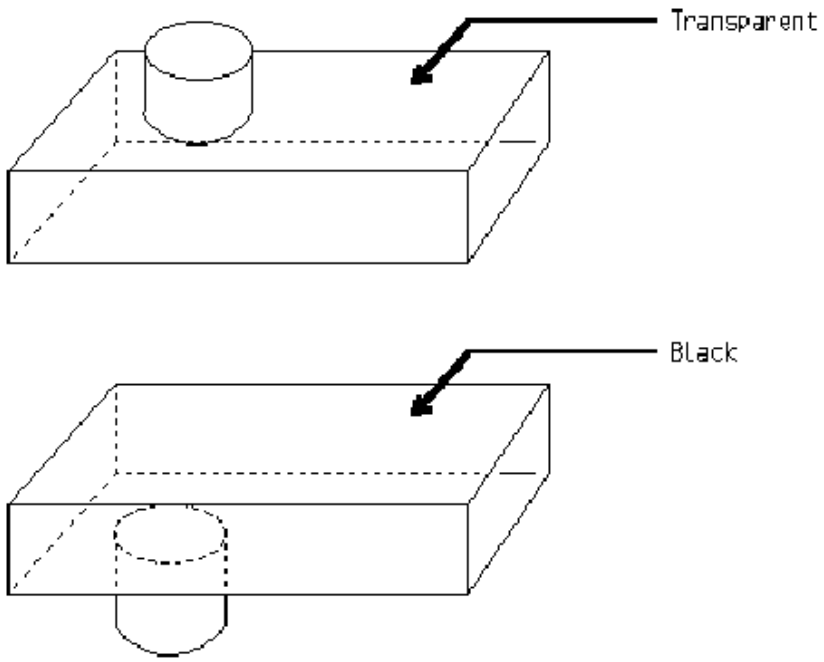


1) Connect F50-BDU to PC and execute RAS25 (RAS25 means to display thickness sensor level).
2) Set the sensor level for E7-4 by turning the adjusting knob and secure it with screws
   Note:Make sure bill is not existed at thickness sensor area (DFCS) during adjustment of sensor level.
3) Execute RAS31.
   When "Normal termination" is displaied insert a standard media (0.3mm) to the position of the thickness sensor (DFCS), and press the Enter Key.
   Note; Make sure that the media is not extremely crooked.
   Standard media: D15L-0014-0157
3) Remove standard media and adjusting the thickness sensor. Then adjustment of thickness sensor is completed.

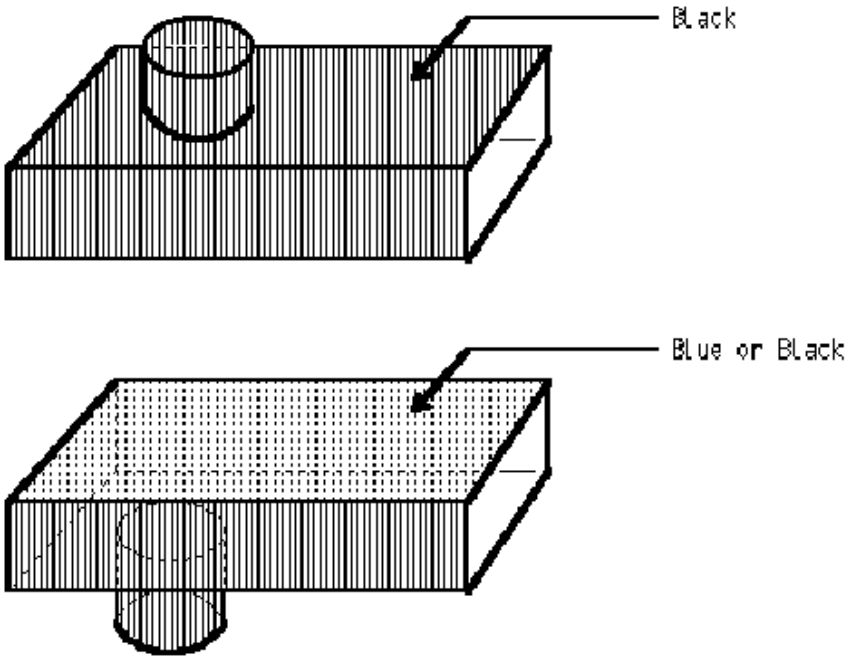
2.3• Replacing the sensor

(1) DC type sensor

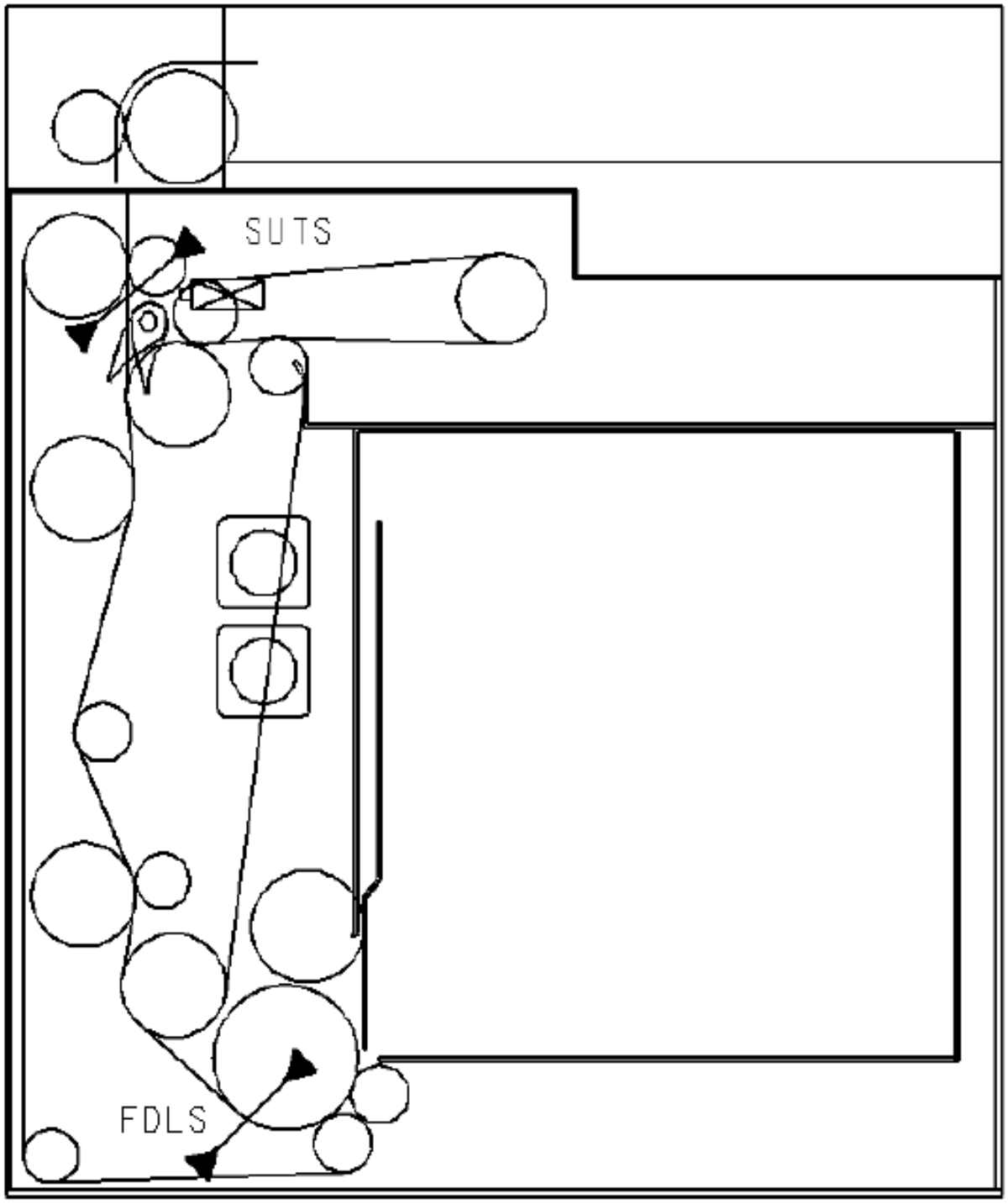
(a) H sensor



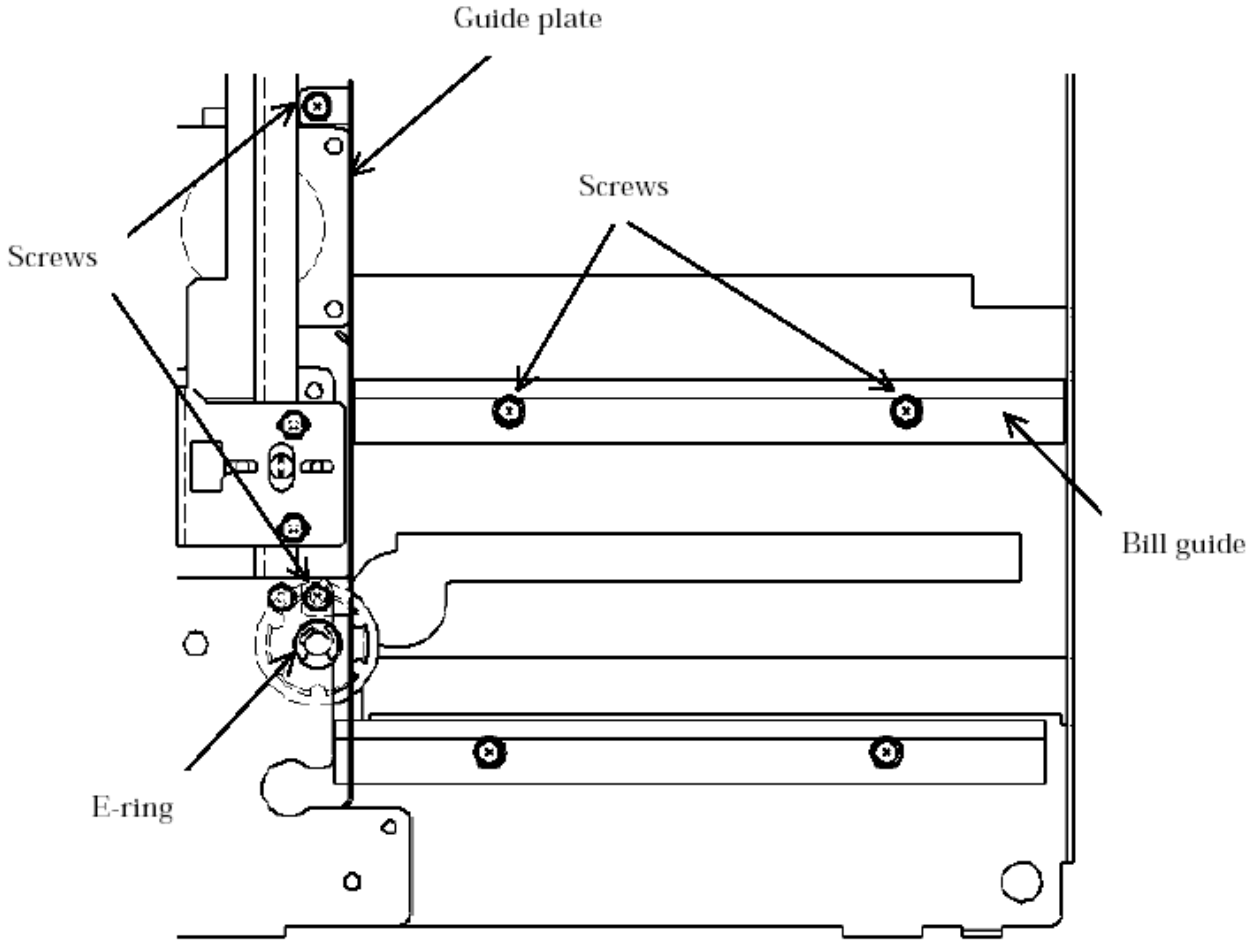
(b) J sensor

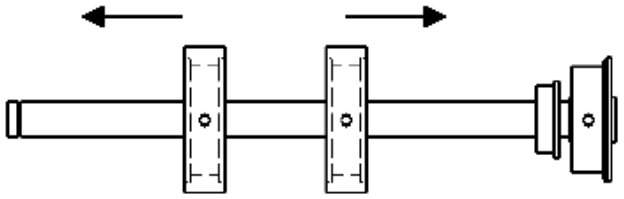


(2) Sensor mounting locations



2.4 Replacing the Pick Roller





Shaft asy

1) Remove bill guide (by unscrewing two screws in two places)
2) Remove guide plate(by unscrewing two screws in two places)
3) Remove E-ring and dismount shaft asy.
4) Remove the pick roller in the direction of the allow.
5) To install, reverse the removal procedure.

FUJITSU F-50 DISPENSER ERROR CODES

(1) 1st cassette section

Semi-major	Error Category	Error description	Error detail (minor category)		Cause (Sensor etc.)	Detection timing	Command issued
18	Hard error	Pick error	00	1st cassette pick error	FDLS	An error occurred because pick from the 1st cassette was attempted more than the specified number of retries.	Bill count Automatically rejected bill count

(2) Transfer section

Semi-major	Error Category	Error description	Error detail (minor category)		Cause (Sensor etc.)	Detection timing	Command issued
70	Medium error	Medium remaining	01	FDLS medium remaining	FDLS	The FDLS sensor was ON during the remaining-medium check.	Device's initialization Bill count Automatically rejected bill count
			06	SUTS medium remaining	SUTS	The SUTS sensor was ON during the remaining-medium check.	
			81	Medium remaining between FDLS and SUTS	FDLS, SUTS	A medium remains between the FDLS and SUTS sensors.	

Semi-major	Error Category	Error description	Error detail (minor category)		Cause (Sensor etc.)	Detection timing	Command issued
78	Medium error	Transfer error	01	FDLS jam occurred	FDLS	A jam occurred in FDLS during count operation.	Device's initialization Bill count Automatically rejected bill count
			11	Jam occurred between FDLS and SUTS	FDLS, SUTS	A jam occurred between FDLS and SUTS during count operation.	
			20	FDLS medium remaining	FDLS	The sensor was ON during the remaining-medium check after completion of count.	
			30	FDLS medium remaining	FDLS	The FDLS sensor was ON during the remaining-medium check after completion of cleaning JAM.	Bill count Automatically rejected bill count

Semi-major	Error Category	Error description	Error detail (minor category)		Cause (Sensor etc.)	Detection timing	Command issued
79	Medium error	Transfer error	00	SUTS jam occurred	SUTS	This error occurs if a jam occurs in SUTS.	Device's initialization Bill count Automatically rejected bill count
		Medium Remaining	28	SUTS medium remaining	SUTS	The sensor was ON during the remaining-medium check after completion of count.	Bill count Automatically rejected bill count
		Medium detected	30	Medium detected	FDLS	Bill outflow was detected.	Bill count Automatically rejected bill count

(3) Bill check section

Semi-major	Error Category	Error description	Error detail (minor category)		Cause (Sensor etc.)	Detection timing	Command issued
82	Medium error	Medium error	00	Long bill	FDLS	As many errors as the specified number of errors occurred in the bill judgment and the last error was a bill length (long) error.	Bill count Automatically rejected bill count
83			00	Short bill	FDLS	As many errors as the specified number of errors occurred in the bill judgment and the last error was a bill length (short) error.	
84			00	Thickness abnormal	DFCS	As many errors as the specified number of errors occurred in the bill judgment and the last error was a thickness error.	
86			00	Abnormal spacing	FDLS	Spacing between picking bills is less than the specified value	

Semi-major	Error Category	Error description	Error detail (minor category)		Cause (Sensor etc.)	Detection timing	Command issued
88	Medium error	Medium detected	00	Count mismatch	SUTS	Number of requested bills = number of bills identified as normal (number of times of switching the gate to ejection) = number of bills that passed through SUTS does not hold. (checked for each cassette)	Bill count •
			01	Count mismatch	SUTS	CPS was turned ON when there was no bill.	Bill count Automatically rejected bill count•
			03	Count mismatch	SUTS	Medium passed through CPS while clearing a jam.	
89	Hard error	Hard error	xx	Potentiometer error xx: Data when judged erroneous (MDS measured data)	DFCS	An error occurred in the thickness sensor.	Device's initialization Bill count Automatically rejected bill count•

Semi-major	Error Category	Error description	Error detail (minor category)		Cause (Sensor etc.)	Detection timing	Command issued
C0	Command error	Sequence error	00	Received illegal command.		Received D level command during RAS mode.	All RAS command
			01	Received illegal command		Received "LE" during RAM program mode.	Program loading
			02	Received illegal command		Received "LE" before receiving "LD" command.	Program loading
C1	Down load error	Download error	00	Received illegal command		After receiving the "RT", a loss in the download program.	Program reset
			01	Flash ROM write error.		Flash ROM write error	Program loading
			02	Sum check error of program load.		Sum check error of program load	Program loading

Semi-major	Error Category	Error description	Error detail (minor category)		Cause (Sensor etc.)	Detection timing	Command issued
C1	Down load error	Download error	03	Received illegal command		After receiving the "RT ", version error.	Program reset
			04	Flash ROM erase error.		Flash ROM write error	Program loading
			05	File name error of control area format.		After receiving the "RT ", file name error.	Program reset
			06	Data size error of control area format.		After receiving the "RT ", data size error.	Program reset

Semi-major	Error Category	Error description	Error detail (minor category)		Cause (Sensor etc.)	Detection timing	Command issued
C2	Command error	Sequence error	01	Received illegal command		BD received the command excluding "RT", "LD", "LE".	D level command excluding "RT", "LD", "LE".
C3	Download error	Download error	01	Download header error.		Download header error. (D-Code is not '00')	Program load Program reset
			02	Download header error.		Download header error. (E-Code is not '1' or 'H')	Program load Program reset
			03	Block number error.		Block number error. (D-code is 'LD')	Program load Program reset
			04	Data length error.		Data length error	Program load Program reset

Semi-major	Error Category	Error description	Error detail (minor category)		Cause (Sensor etc.)	Detection timing	Command issued
E0	Command error	Command error	00	RAS command undefined		An undefined RAS command was executed.	RAS command
E1	Parameter error	Parameter error	00	Parameter not registered		An attempt was made to execute a count system request for an initialization request of equipment, although no bill information was registered.	Bill count Automatically rejected bill count
E4	Parameter error	Not defined parameter	01	No bill information (1st cassette)		A cassette with no registered bill information (cassette in which the length of bill information is set to 0 in the initialization request of equipment) was requested to feed bills.	Bill count Automatically rejected bill count•

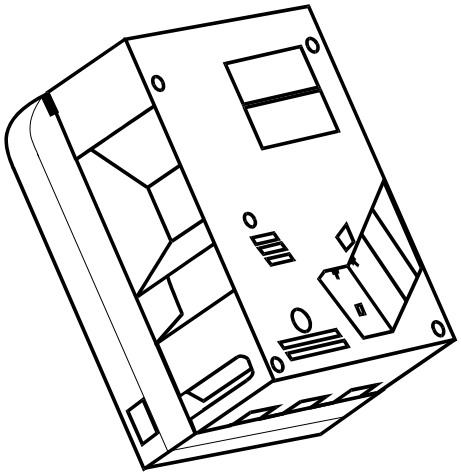
Semi-major	Error Category	Error description	Error detail (minor category)		Cause (Sensor etc.)	Detection timing	Command issued
E5	Parameter error	Parameter error	01	Count sequence specification error		No valid value is specified for the count sequence.	Bill count Automatically rejected bill count
			xx	Specification error of total number of bills xx: Data when judged erroneous		The total number of bills fed by all cassettes has exceeded the specified total number of bills.	Bill count Automatically rejected bill count
E6	Parameter error	Parameter error	xx	Parameter ISO code error xx: Data when judged erroneous		Error in the ISO code of parameters	Bill count Automatically rejected bill count
E8	Parameter error	Parameter error	xx	Bill length/thickness information error xx: Data when judged erroneous		Error in parameters set in the initialization request of equipment	Device's initialization
EA	Parameter error	Parameter error	xx	Parameter error xx: Data when judged erroneous		An out-of-spec value is specified as the operation type in the log data read/initialization request.	Log data read/ initialization
EE	Command error	Command error	xx	FS error xx: Data when judged erroneous		A value other than the value specified in FS cannot be identified correctly.	All commands
EE	Command error	Command error	xx	Command format error xx: Data when judged erroneous		A value other than the value specified in DH2 is set.	All commands

Semi-major	Error Category	Error description	Error detail (minor category)		Cause (Sensor etc.)	Detection timing	Command issued
F1	Hold error	Hard error	00	Pulse motor overcurrent detected		Overcurrent of the pulse motor was detected.	
F6	Hold error	Check sum error	xx	Log data check sum error		The check sum value of the log data is different from the last one.	Log data read / initialization

Semi-major	Error Category	Error description	Error detail (minor category)		Cause (Sensor etc.)	Detection timing	Command issued
F8	Sensor error	Level check error	00	FDLS sensor abnormal	FDLS	15 was set for the sensor slice level of FDLS.	Device's initialization Bill count Automatically rejected bill count
			05	SUTS sensor abnormal	SUTS	15 was set for the sensor slice level of SUTS.	
		Off check error	80	FDLS sensor abnormal	FDLS	Sensor-off check error of FDLS	
			85	SUTS sensor abnormal	SUTS	Sensor-off check error of SUTS	

Semi-major	Error Category	Error description	Error detail (minor category)		Cause (Sensor etc.)	Detection timing	Command issued
FC	Power fail	Power fail	00	Illegal operation due to non-notification of data		Non-notification of data exists due to power-off during execution of the count command	Device's initialization Automatically rejected bill count
FD			00	Power-off during count		Non-notification of data exists due to power-off during. Using the response at this point, notification of the total number during power-off is not given.	Bill count

MKIV UNIVERSAL HOPPER



SERVICE MANUAL

INDEX

		PAGE
1.	Coin box removal & assemble	30-32
2.	Exit window replacement	31
3.	Logic board replacement	32
4.	End plate removal.	32
5.	Coin Belt Removal	32
5a.	**Coin Belt Assembly**	33
5b.	**Coin Belt Replacement**	34
5c.	**Final drive gear replacement**	34
6.	Gearbox assembly	35
7.	7. Motor replacement	35

To UN-jam the hopper, refer to sections 4 – 5b, pages 32–34.

1. COIN BOX REMOVAL

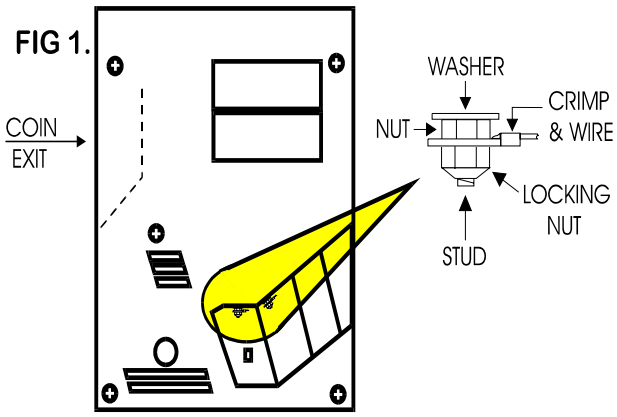
1. Place the hopper in front of you as shown, (looking at the outside of the 'coin box').

Refer to FIG 1.

2. Remove the 2 locking nuts, which hold the 'low level sense plate' wires to the studs.

3. Remove the crimp & wire from the studs.

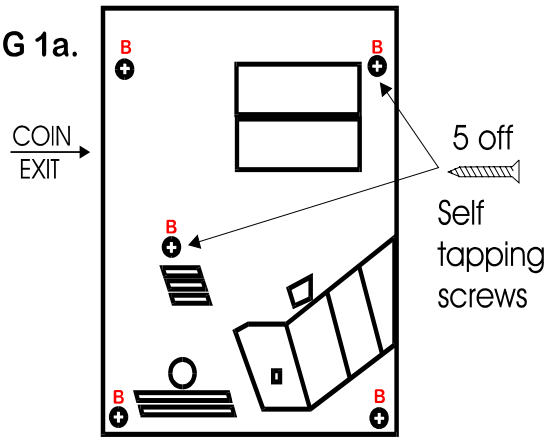
FIG 1.



Refer to FIG 1a.

4. Remove the 5 screws indicated (B), which hold the 'coin box' to the 'center plate'.

FIG 1a.



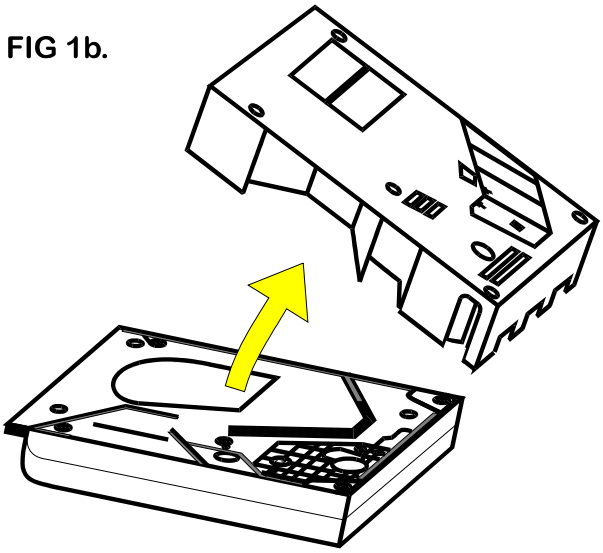
Refer to FIG 1b.

6. Gently lift the 'coin box' away from the rest of the hopper.

NOTE:- The 'logic board' & 'stirrer' are located in the 'coin box'.

7. As the 'coin box' is being removed, carefully slide the 'logic board' out. The stirrer may stay with the 'coin box' or fall onto the center plate.

FIG 1b.

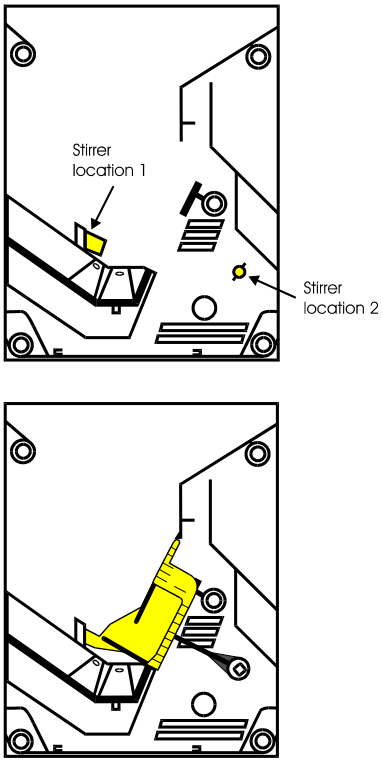


ACCESS IS NOW AVAILABLE TO THE 'LOW LEVEL' SENSE PLATES, THE MAIN PCB, THE EXIT WINDOW, THE MOTOR TERMINALS & PART OF THE WIRING LOOM.

1a. COIN BOX ASSEMBLY

1. Firstly, locate the 'stirrer in the 'coin box as shown in FIG 12.

FIG 12.



COIN BOX ASSEMBLY (cont.)

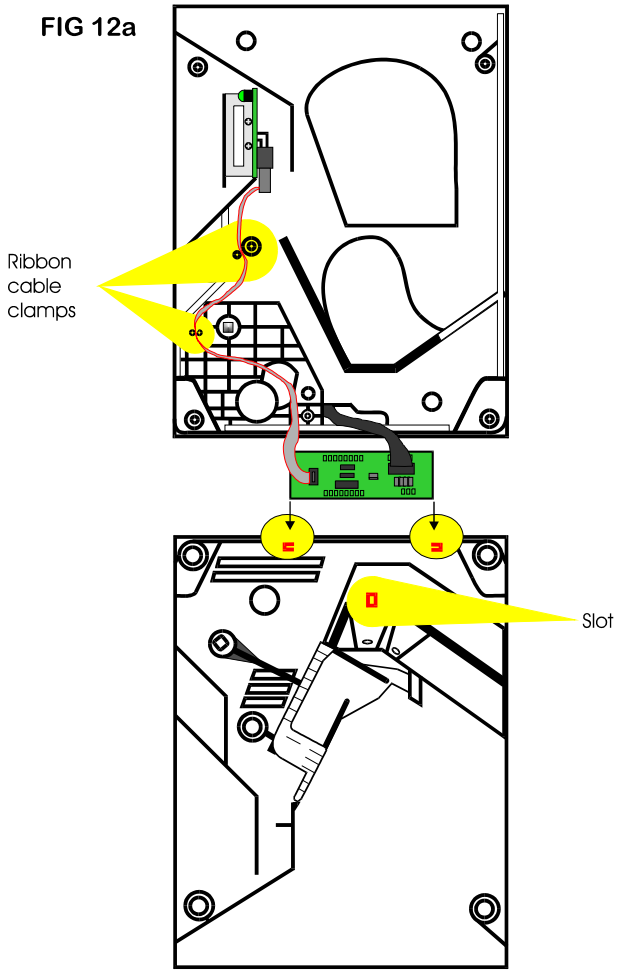
2. Line up the ‘centre plate’ & ‘coin box’ as shown below. FIG 12a.

3. Route the ribbon cable as shown below.

4. Fit the ‘logic board’ into slots shown below.

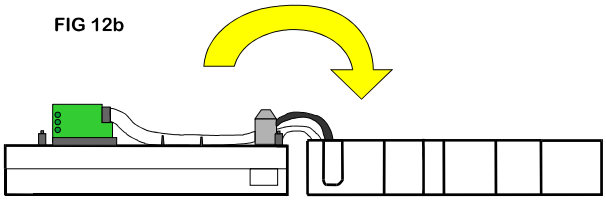
5. Feed the level sense wires through the slot shown below.

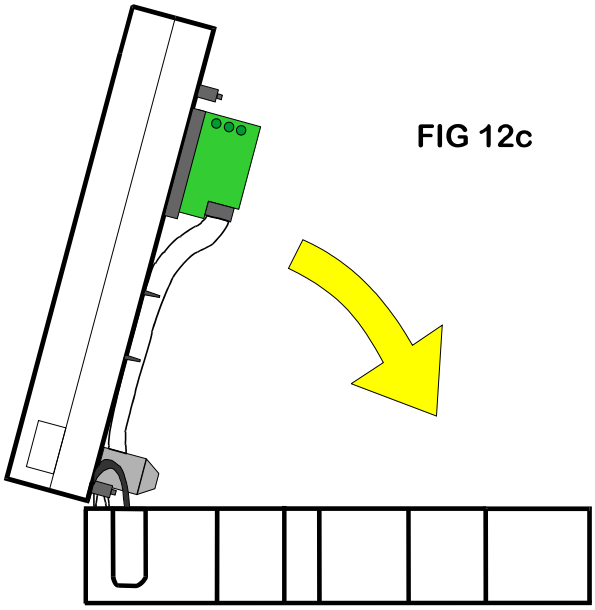
FIG 12a



6. Lift the ‘centre plate’ to meet the ‘coin box’. FIG 12b & c.

FIG 12b





7. Align the ‘center plate’ & ‘coin box’ & push together.
8. Turn the hopper over & refit the screws.
9. Refit the level sense wires.

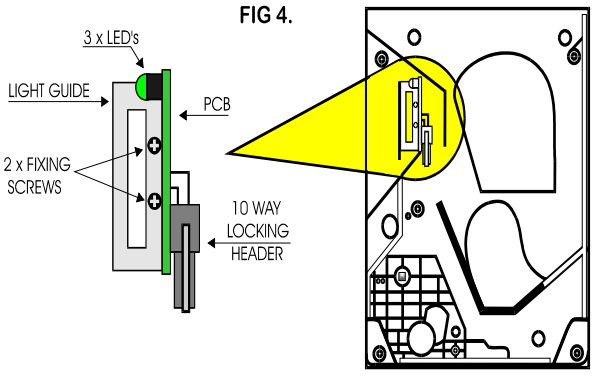
2. EXIT WINDOW REPLACEMENT

1. First, remove the ‘coin box’, section 1.

This will then enable access to the ‘exit window’

2. Unscrew & remove the 2 fixing screws. FIG 4.
3. Remove the ‘exit window’ from the ‘center plate’.
4. Unclip & remove the 10-way ribbon cable header.

FIG 4.



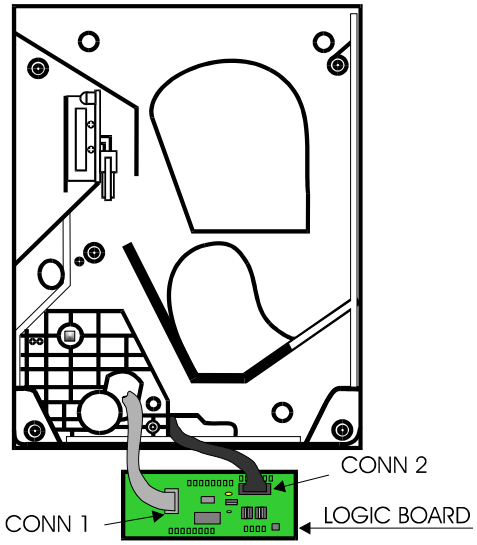
5. To re-assemble, follow the above steps in reverse.

3. LOGIC BOARD REPLACEMENT

1. First, remove the ‘coin box’, section 1.

This will then enable access to the ‘logic board’.

FIG 5.



10-way ribbon IDC socket (CONN 1).

2. Move the two ejector arms at right angles to & away from the connector, if fitted.
3. This should release the socket from the header.
4. Clasping the connector between thumb & forefinger, pull away from pin header.
   14-way crimp socket (CONN 2).
5. Gently, unclip the “friction lock” from the connector housing.
6. Clasping the connector between thumb & forefinger, pull away from pin header.
7. The Logic Board is now released.
8. To re-assemble, follow the above steps in reverse.

4. END PLATE REMOVAL

1. Place the hopper in front of you as shown, (looking at the outside of the ‘end plate’).

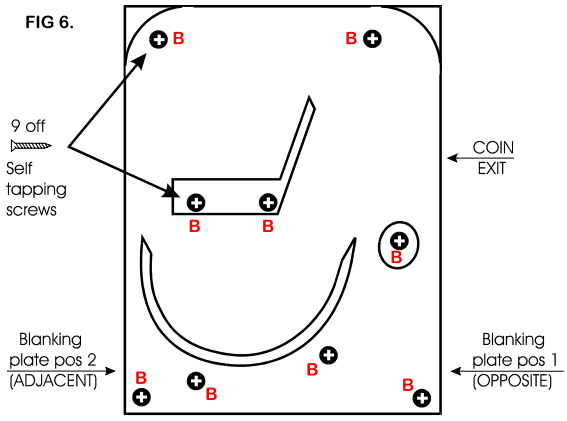
Refer to FIG 6.

2. Remove the 9 screws indicated (B), which hold the ‘end plate’ to the ‘center plate’.

3. Locate the position of the ‘connector blanking piece’.

4. Holding the ‘connector blanking plate’ gently lift the ‘end plate’ away from the rest of the hopper.

FIG 6.



5. To re-assemble, follow the above steps in reverse.

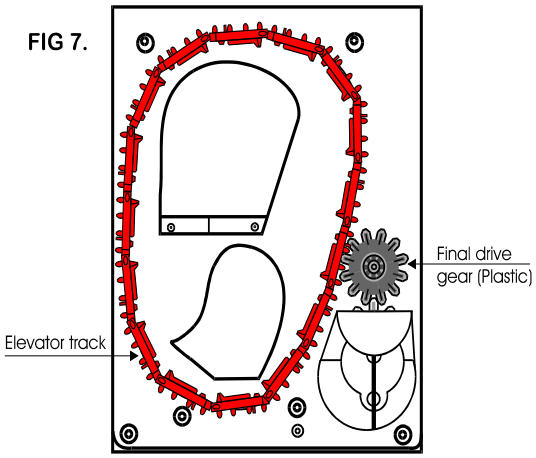
5. TRACK PLATE REMOVAL

1. 1. First, remove the ‘end plate’, section 6.

See FIG 7.

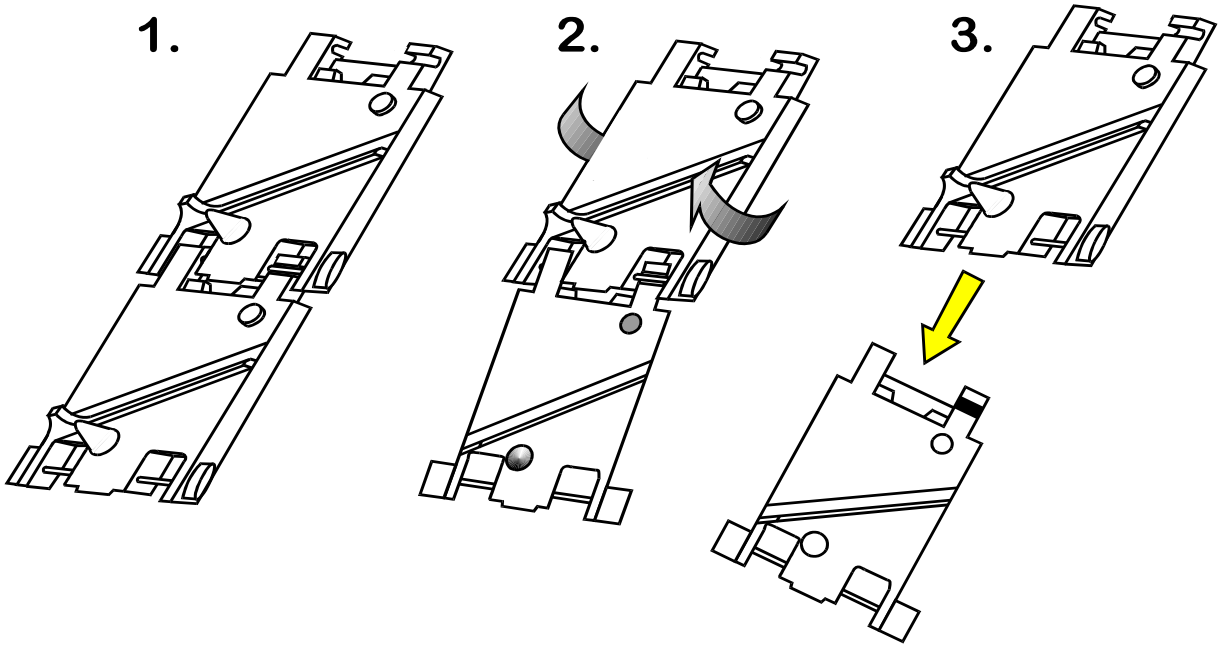
2. The ‘elevator track’ & ‘final drive gear’ can now be removed by lifting up & away from the ‘center plate’.

FIG 7.

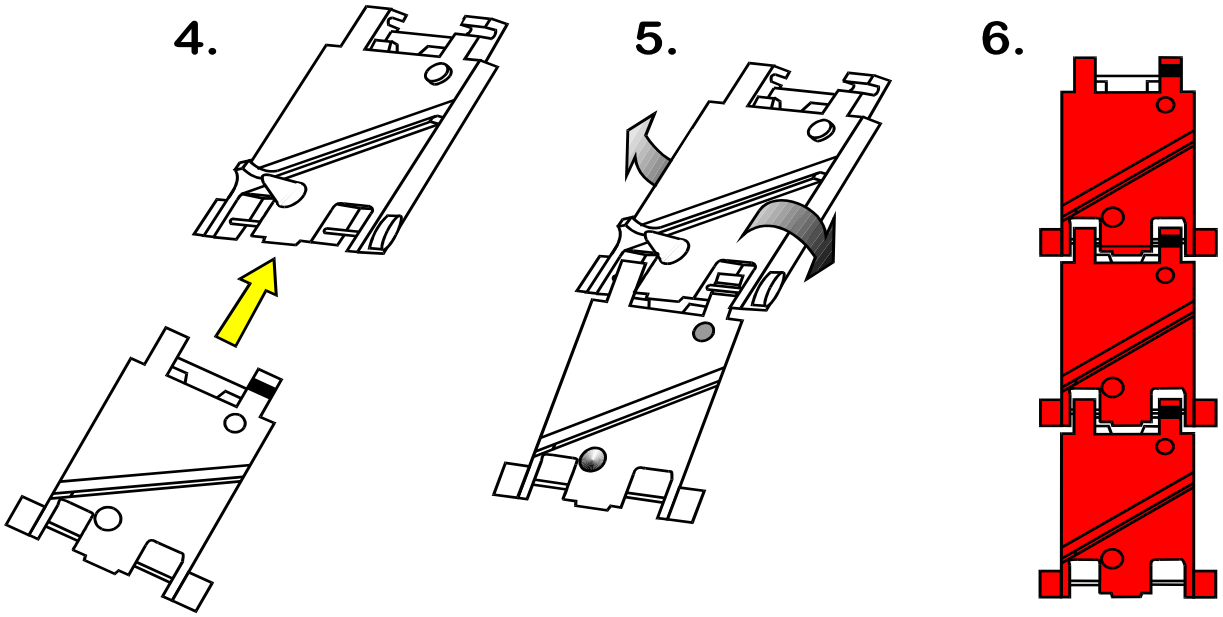


5a. TRACK PLATE ASSEMBLY

The following 3 sketches show how to take the ‘track plate’ apart.



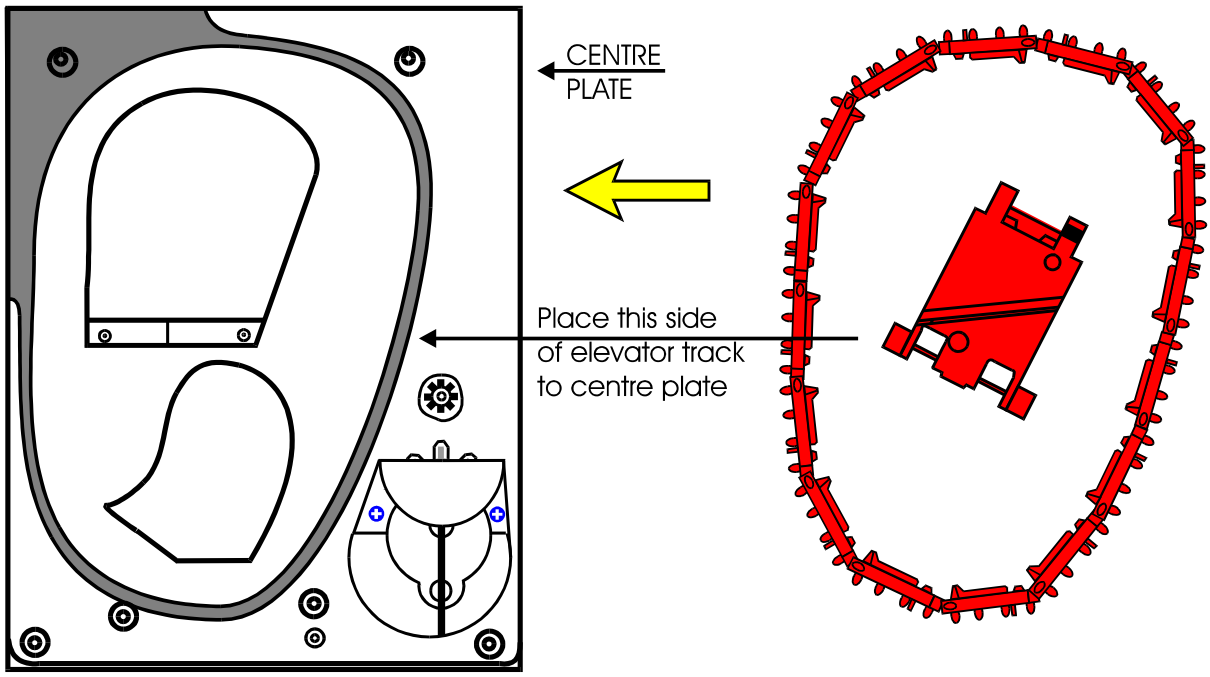
The following 3 sketches show how to assemble the ‘track plate’.



5b. TRACK PLATE REPLACEMENT

1. The gray shaded area, in FIG 7b, is the ‘track plate’ guide path.

FIG 7b.

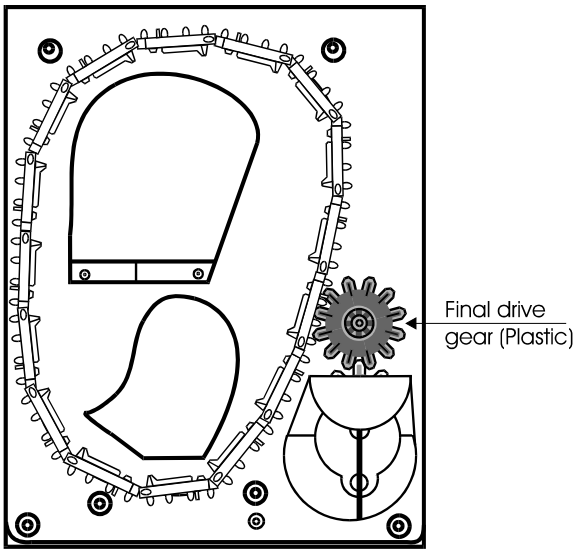


2. Once the ‘track plate’ is in position, turn the track through 720 ^{0} to ensure it is seated in the guide path correctly.

5c. FINAL DRIVE GEAR REPLACEMENT

1. Once the ‘elevator track’ is in place, the ‘final drive gear’ can be fitted by placing the gear over its mounting spindle, while lining the teeth up with the secondary drive gear, adjust the ‘elevator track’ so that the gear falls into place. FIG 7c.
2. The end plate can now be re-fitted. See section 6.

FIG 7c.



6. GEAR BOX ASSEMBLY

1. Remove the end plate. Section 6.

2. Remove the ‘elevator track’ & ‘final drive gear’. Section 7.

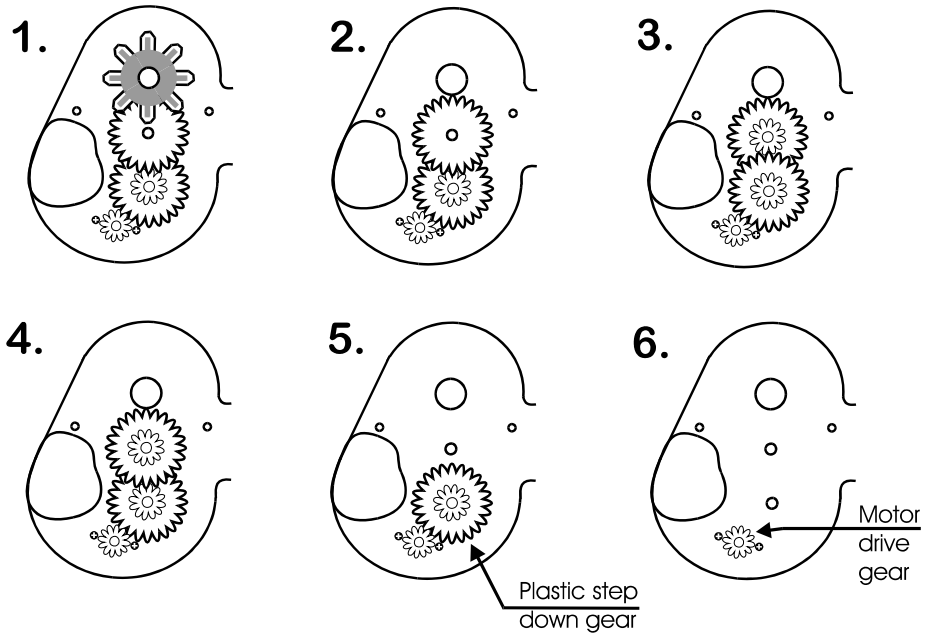
3. Remove the gearbox cover. Section 8.

4. Remove the gears in the order as shown in FIG 9.

Access to the motor fixing screws is now possible.

5. To re-assemble, follow the above steps in reverse.

FIG 9.



7. MOTOR REPLACEMENT

1. Remove the ‘coin box’. Section 1.

2. Unsolder the red & black wires from the motor.

NOTE: The black wire connects to the terminal marked with a RED dot.

3. Remove the ‘end plate’. Section 6.

4. Remove the ‘track plate’ & final drive gear. Section 7.

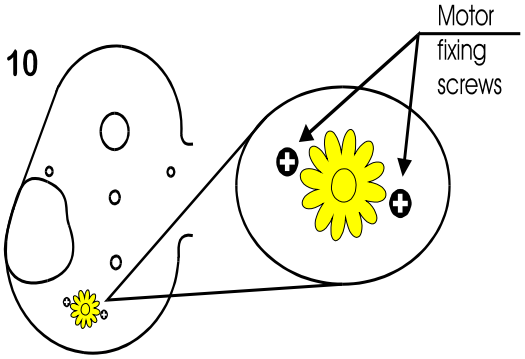
5. Remove the gearbox cover. Section 8.

6. Disassemble the gearbox. Section 9.

7. Unscrew the 2 motor fixing screws. FIG 10.

8. To re-assemble, follow the above steps in reverse.

FIG 10

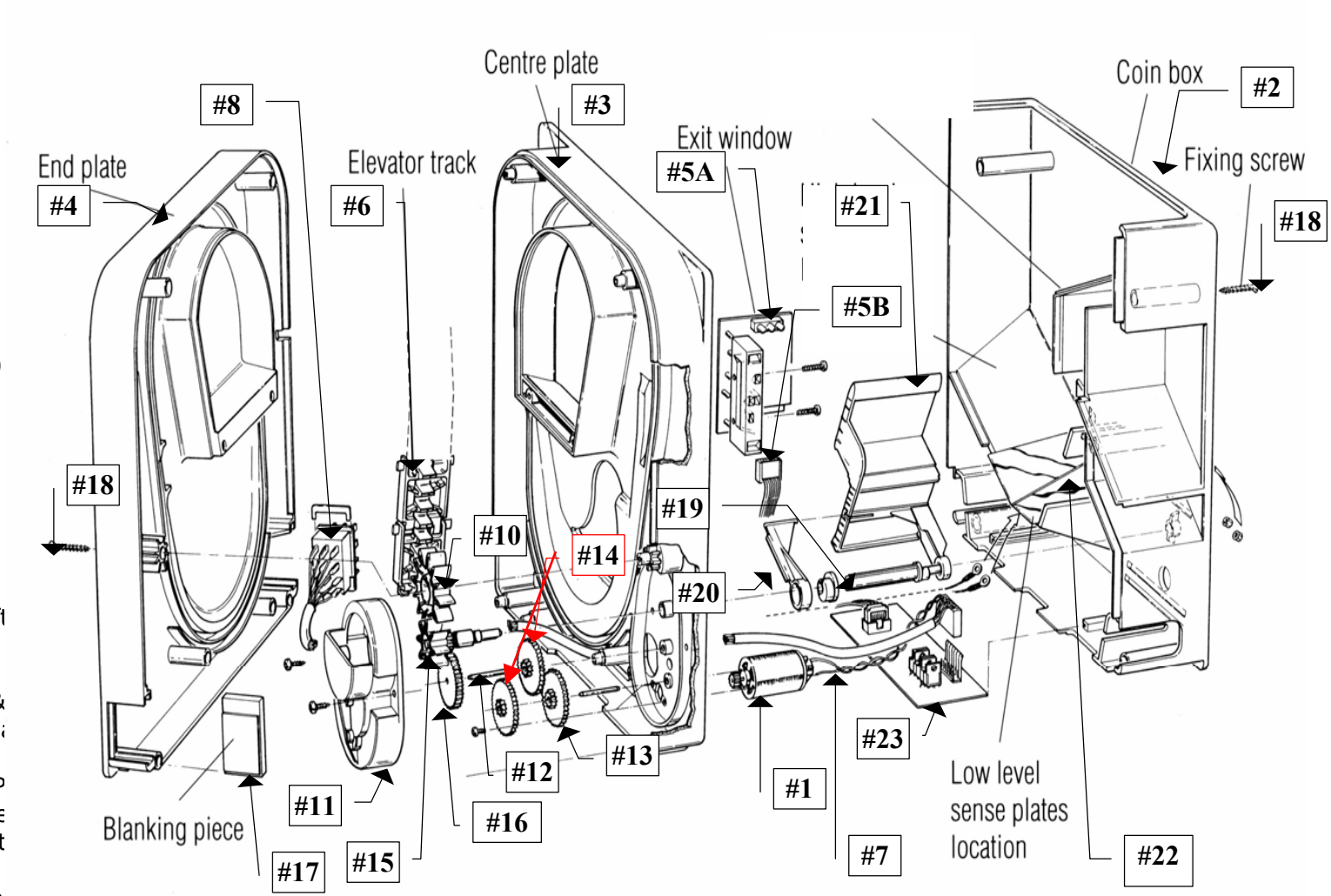


TROUBLESHOOTING GUIDE

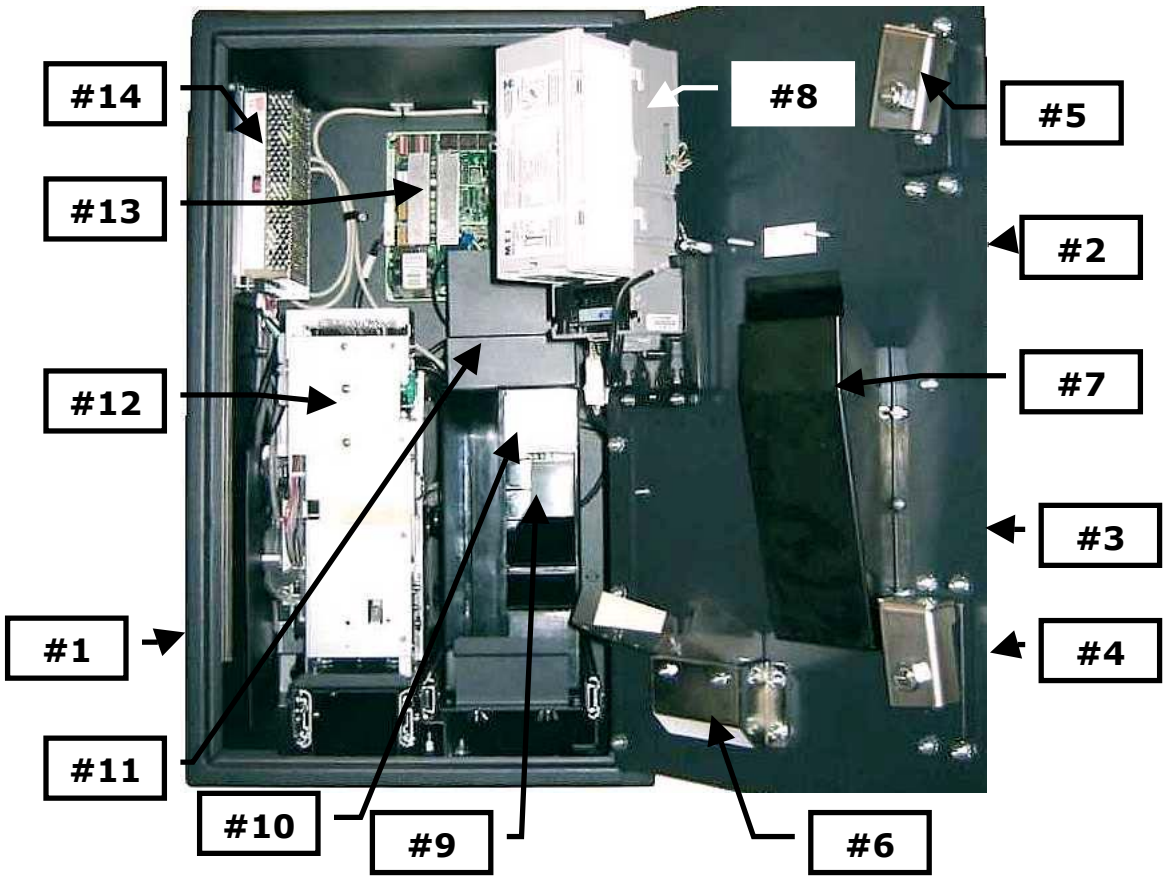
TO USE THE TROUBLESHOOTING GUIDE, MATCH UP THE PROBLEM, THEN FOLLOW THE SOLUTION SUGGESTIONS. After every step re-try operating the changer to see if the problem has been solved.

PROBLEM:	***SOLUTION:***
A. Red LED display on the Main Logic Board reads "**C0000**" when the "DUMP" button is depressed.	**1. INVALID DIPSWITCH SETTINGS ON THE MAIN LOGIC BOARD!!!**
B. The MARS bill validator red status LED flashes a "3" error code OR The COINCO bill validator red status LED flashes a "5" error code.	1. Clean the validator optic LED's. 2. Ensure that all the wire harness plugs are plugged firmly into their white female sockets. 3. Replace the bill validator.
C. The MARS bill validator flashes a continuos error code OR the COINCO bill validator red status LED flashes a "6 or 7" error code.	1. Take the bill stacker off the bill validator. Cycle the power on / off using the switch on the main logic board and coast the silver push bar so that it stops in its fully extended position. Blow out the area behind the push bar with high pressure or canned air. Concentrate on the encoder wheel in the area top center behind the push bar. 2. Replace the bill validator.
D. The bill validators red status LED is on steady but it still will not accept the bill.	1. Pull out the lower housing, see page, and look for something obstructing the bill path. (I.e. gum, paper, tickets, coins, etc.) 2. Look inside the Plexiglas case on the side of the bill validator. Ensure that all the wire harness plugs are plugged firmly into their white female sockets.
E. Red LED display on the Main Logic Board reads "b0002" when the "DUMP" button is depressed.	1. There is no communication between the bill dispenser and the logic board. Cycle power. 2. Replace the Bill Dispenser. 3. Replace the RS232 harness.
F. Red LED display on the Main Logic Board reads "b0001" when the "DUMP" button is depressed.	1. The reject bill holder is full. Empty out the reject bill tray.
G. Red LED display on the Main Logic Board reads "b0000" when the "DUMP" button is depressed.	1. The bill dispenser is low on bills. Fill the bill dispenser up with more bills.
H. Red LED display on the Main Logic Board reads "00001" when the "DUMP" button is depressed.	1. Hopper is low on coins. Refill hopper. 2. Low coin plates are corroded. Clean plates with emery cloth. 3. Replace hopper.
I. Red LED display on the Main Logic Board reads "00004" when the "DUMP" button is depressed.	1. Hopper is jammed. Replace the hopper. 2. Hoppers coins bridged and payout timed out. Reset machine.
J. Red LED display on the Main Logic Board reads "00002" when the "DUMP" button is depressed.	1. Exit window is blocked or is bad. Remove object from exit window. 2. Replace hopper.

#1 - 1041-24-01 Motor
#2 - 1041-24-02
Motor Side Cover
#3 - 1041-24-03
Center Plate
#4 - 1041-24-04
End Plate
#5A- 1041-24-05
Coin Optic Board.
#5B- 1041-24-06
Optic ribbon cable.
#6 - 1041-24-07
Red track plates (16 per belt)
#7 - 1041-24-08
Logic board wire harness
#8 - 1040-24-113
Male 12 pin connector
#9 - 1040-24-112
Female 12 pin connector
#10 - 1041-24-12 Idler gear
#11 - 1041-24-13 Gear Box
#12 - 1041-24-14 Gear Shaft
#13 - 1041-24-15
Gear #1 Plastic
#14 - 1041-24-16 Gear #2 &
#15 - 1041-24-17 Output gea
#16 - 1041-24-18 Gear #4
#17 - 1040-24-22 Blanking P
#18 - 1040-24-25 Fixing scre
#19 - 1041-24-19 Cam Shaft
1041-24-22 Agitator
1041-24-20 Cam shaft bearin
#20 -1041-24-21 Cam Agitator
#21 – 1040-24-36 Stirrer
#22 - 1040-24-291
Low level contact plate.
#23 - 1041-27-373
Mark IV PC logic board.



AC7502/7505 CABINET PARTS BREAKDOWN LIST

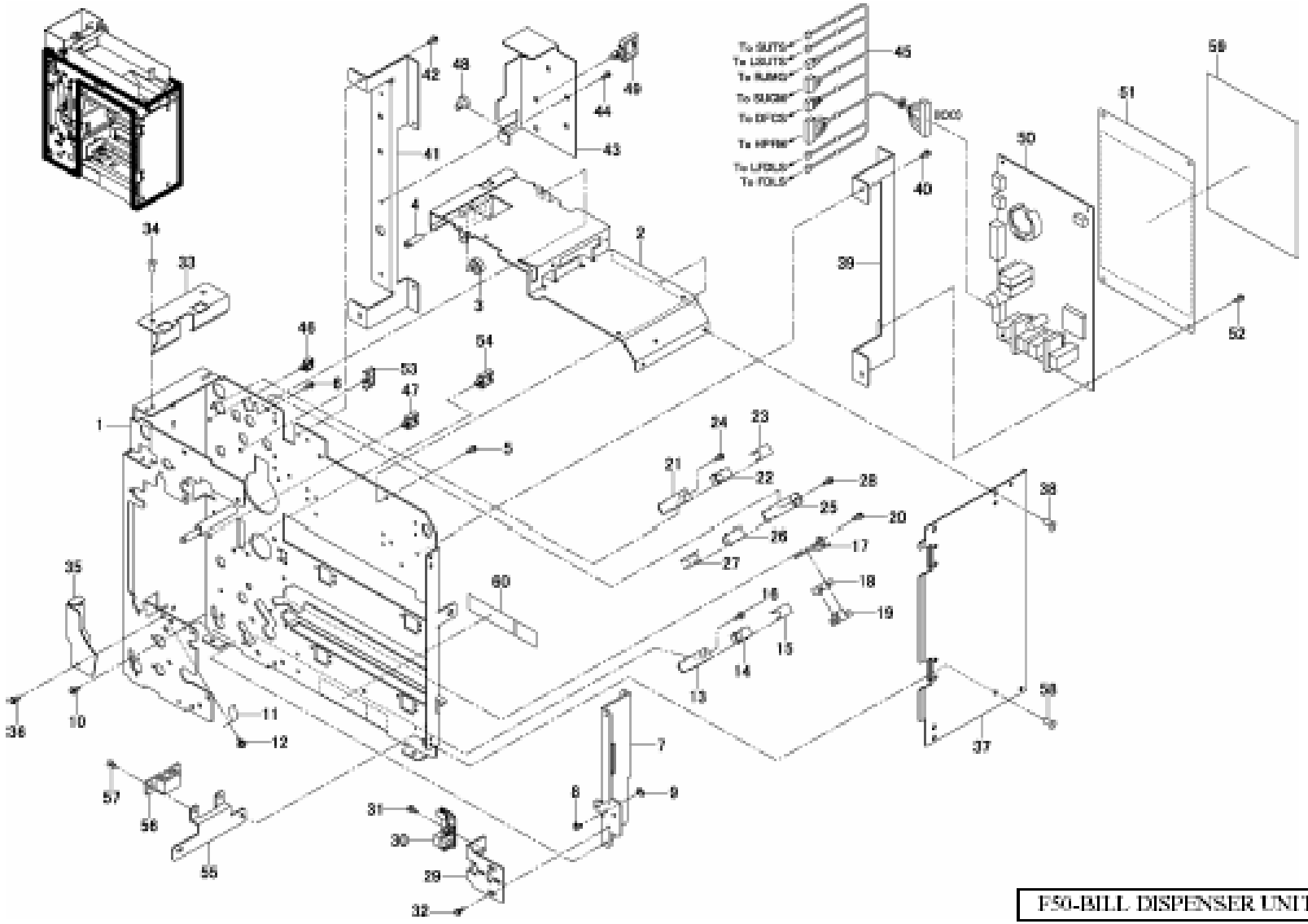


#'S	Part #	Description
#1	AC7012	Cabinet for the AC7502
	AC7013	Cabinet for the AC7505
	AC7013.2	Stainless Steel Front for the Cabinet for the AC7505 ONLY!
#2	AC7012.1	Door for the AC7502
	AC7013.1	Door for the AC7505
#3	AC7086	Front sticker, Dispensing $5 bills
	AC7086.1	Front sticker, Dispensing $1 bills
#4	AC1080	90-degree Locking T-Handle ONLY!
	AC1093	Lock and key
#5	AC7012-02	Stainless steel locking hasp ONLY!
#6	AC7012-01	Coin Cup complete (2-Pieces)
#7	AC7012-03	Bill Cup Complete
	AC7012-03A	Aluminum bill cup (BLACK) ONLY!
#8	AC9003.2	MEI Mars $1-$20 bill validator (Standard Equipment)
	AC9007	ACC MATRIX Bill Validator (March 2004)
#9	2010-104	Right Coin hopper chute
#10	AC1041	Money Controls hopper chute
#11	AC1042	Hopper extension (hold $300 extra in coins, standard)
#12	AC7040.1	Fujitsu F-50 bill dispenser
#13	AC7060.2	AC7502/7505 Logic Board
#14	AC8062.1	AC7502/7505 24VDC 6-Amp Power supply

PARTS AND HARNESSES NOT SHOWN

PART #	DESCRIPTION
AC1040.3	**AC7502** Hopper plate with harness
AC1040.4	**AC7505** Hopper plate with harness
AC1065.1-2H	MDB MARS validator harness 30”
AC1062-2H	Empty LED harness
1060-20	Red 14VDC “Empty” LED
AC2060-01	Computer power cord for all changers
AC8062.1-2H-RLY	Power harness, 24VDC Power supply with Relay
AC8062.1-2H	Power Harness, DC voltage, 5VDC + 24VDC ONLY!
AC7060.2-RS232	RS232 connector, reversed, for F-50 bill dispenser
AC7060-HTR+RLY	OPTIONAL Power harness for Power supply & Heater for **AC7505**
AC7040.1-1H	F-50 RS232 pigtail (Attached to bill dispenser)
AC7040.1-2H	F-50 24VDC-power pigtail (Attached to bill dispenser)
AC7012-04	Double slider track platform complete for coin hopper
AC7012-05	Triple slider track platform complete for bill dispenser
AC2076	OPTIONAL High security base for Front Load machine
AC7075	OPTIONAL header kit for Front load machine

FIGURE1 FRAME• ASSEMBLY I



F50-BILL DISPENSER UNIT	1

INDEX No.	COMPOSITION& ▪ ▪▪▪▪▪QUANTITY	SP	PART NUMBER	PART NAME	
-	1		KD11078-B002	F50-BDU	
-	1		KD11078-B003	F50-BDU	
-	1		KD11078-B012	F50-BDU	
-	1		KD11078-C400	Main unit	
1	1		KD11078-E400	Frame assembly	
-	1		KD11078-D480	Top stay asssembly	
2	1		KD11078-E480	Top stay asssembly	
3	1		CA80409-0056	Bearing	
4	1		KD11078-Y179	Shaft	
5	2		F6-SW2N3-06111	Machine screw with washer	
6	1		F6-SW2N3-08111	Machine screw with washer	
-	1		KD11078-D485	Stay asssembly	
7	1		KD11078-Y487	Stay	
8	1		CA05805-Y166	Eccentric shaft	
9	1		F6-ER2-S	Retaining ring E	
10	2		F6-SW2N3-06111	Machine screw with washer	
11	1		KD11078-Y467	Scraper	
12	1		CA81002-1341	TP screw	
-	1		KD11078-D510	Sensor assembly-1	
13	1		KD11078-Y512	Sensor bracket-1	
14	1		CA02950-0643	Emission diode	LFDLS
15	1		KD11059-Y098	Sensor holder	
16	1		F6-SW2N3-06111	Machine screw with washer	
-	1		KD11078-D511	Sensor assembly-2	
17	1		KD11078-Y513	Sensor bracket-2	
18	1		CA02950-0644	Photo diode	FDLS
19	1		KD11059-Y098	Sensor holder	
20	1		F6-SW2N3-06111	Machine screw with washer	
-	1		KD11078-D515	Sensor assembly-3 PD	
21	1		KD11078-Y516	Sensor bracket-3	
22	1		CA02950-0643	Emission diode	LSUTS

FIGURE1 FRAME ASSEMBLY 1

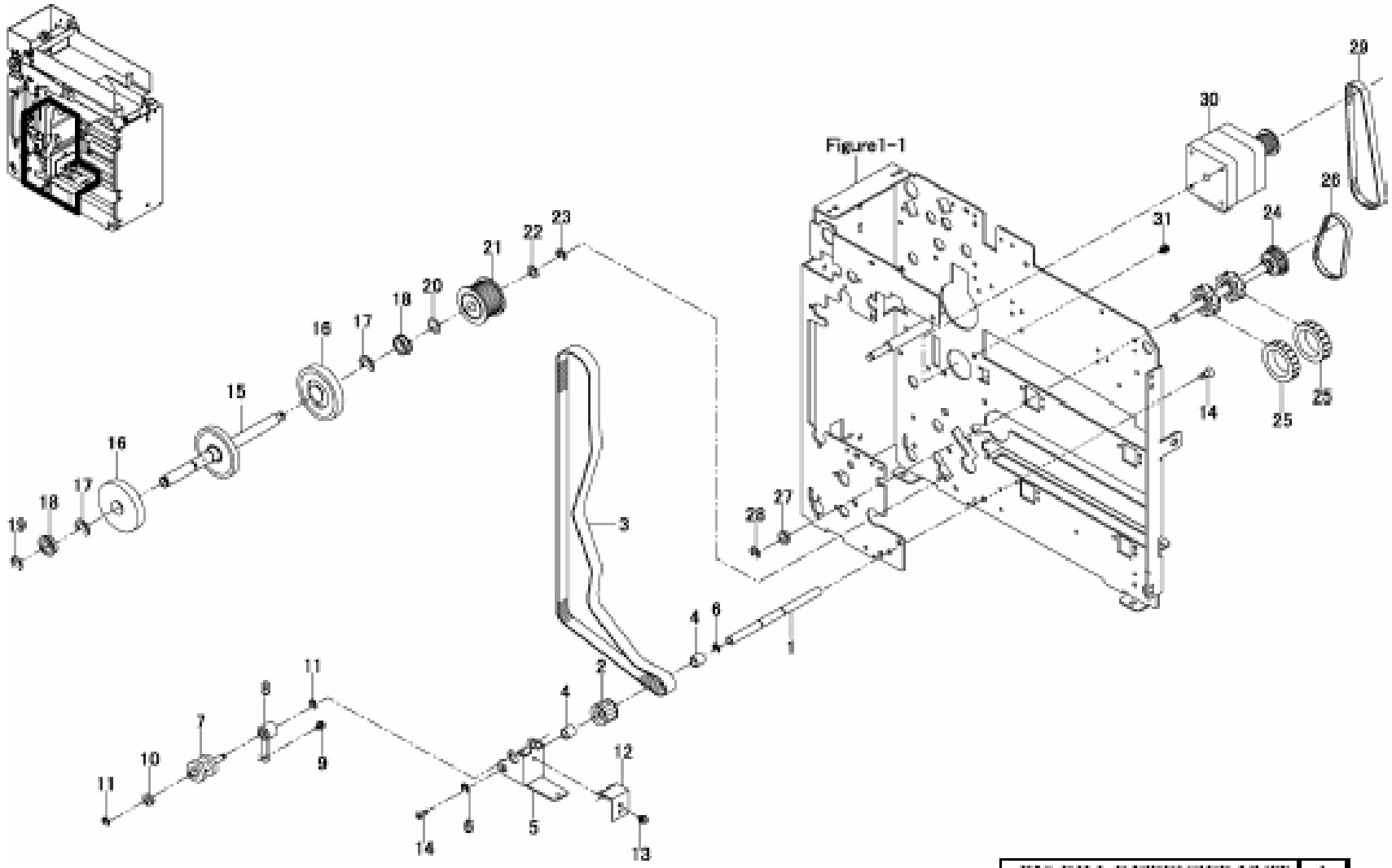
INDEX No.	COMPOSITION& ▪ ▪▪▪▪▪QUANTITY	SP	PART NUMBER	PART NAME	
23	1		KD11059-Y098	Sensor holder	
24	1		F6-SW2N3-06111	Machine screw with washer	
-	1		KD11078-D516	Sensor assembly-3 PT	
25	1		KD11078-Y516	Sensor bracket-3	
26	1		CA02950-0644	Photo diode	SUTS
27	1		KD11059-Y098	Sensor holder	
28	1		F6-SW2N3-06111	Machine screw with washer	
-	1		KD11078-D520	Thickness sensor bracket assembly	
29	1		KD11078-Y522	Thickness sensor bracket	
30	1		CA82001-0559	Thickness sensor	DFCS
31	2		F6-SW3N3-06111	Machine screw with washer	
32	2		F6-SW2N3-06111	Machine screw with washer	
33	1		KD11078-Y555	Guide	
34	2		F6-RBM32032-AS	Rivet	
35	1		KD11078-Y418	Cover	
36	1		F6-SW2N3-06111	Machine screw with washer	
37	1		KD11078-E560	Cover assembly	
38	3		F6-RBM32032-AS	Rivet	
39	1		KD11078-Y590	PCB bracket 1	
40	2		F6-SW2N3-06111	Machine screw with washer	
41	1		KD11078-Y591	PCB bracket 2	
42	2		F6-SW2N3-06111	Machine screw with washer	
43	1		KD11078-Y593	Cable holder B	
44	1		F6-SW2N3-06111	Machine screw with washer	
45	1		KD11078-G405	Cable	
46	4		CT-MSC-1607-NIX	Saddle	
47	2		CT-MSC-1611-NIX	Saddle	
48	2		F6-NYBT1	Band	
49	1		CT-WS-2W-V0-NIX	Saddle	
50	1		KD2A005-B621	PCB	
51	1		KD11078-Y595	Sheet	

FIGURE1 FRAME ASSEMBLY 1

INDEX No.	COMPOSITION& ▪ ▪▪▪▪▪QUANTITY	SP	PART NUMBER	PART NAME
52	4		F6-SW2N3-06111	Machine screw with washer
53	1		CT-LWSM-0511-NIX	Saddle
54	1		CT-MSC-1613-NIX	Saddle
55	1		KD11078-Y573	Metal fitting
56	1		KD96002-0827	Catch(concave)
57	2		F6-SSA3-04111	Machine screw
58	2		F6-RBM32048-AS	Rivet
59	1		KD91302-0529	Label
60	1		KD91001-Y693	Unit label

DRAFT

FIGURE2 FRAME• ASSEMBLY 2



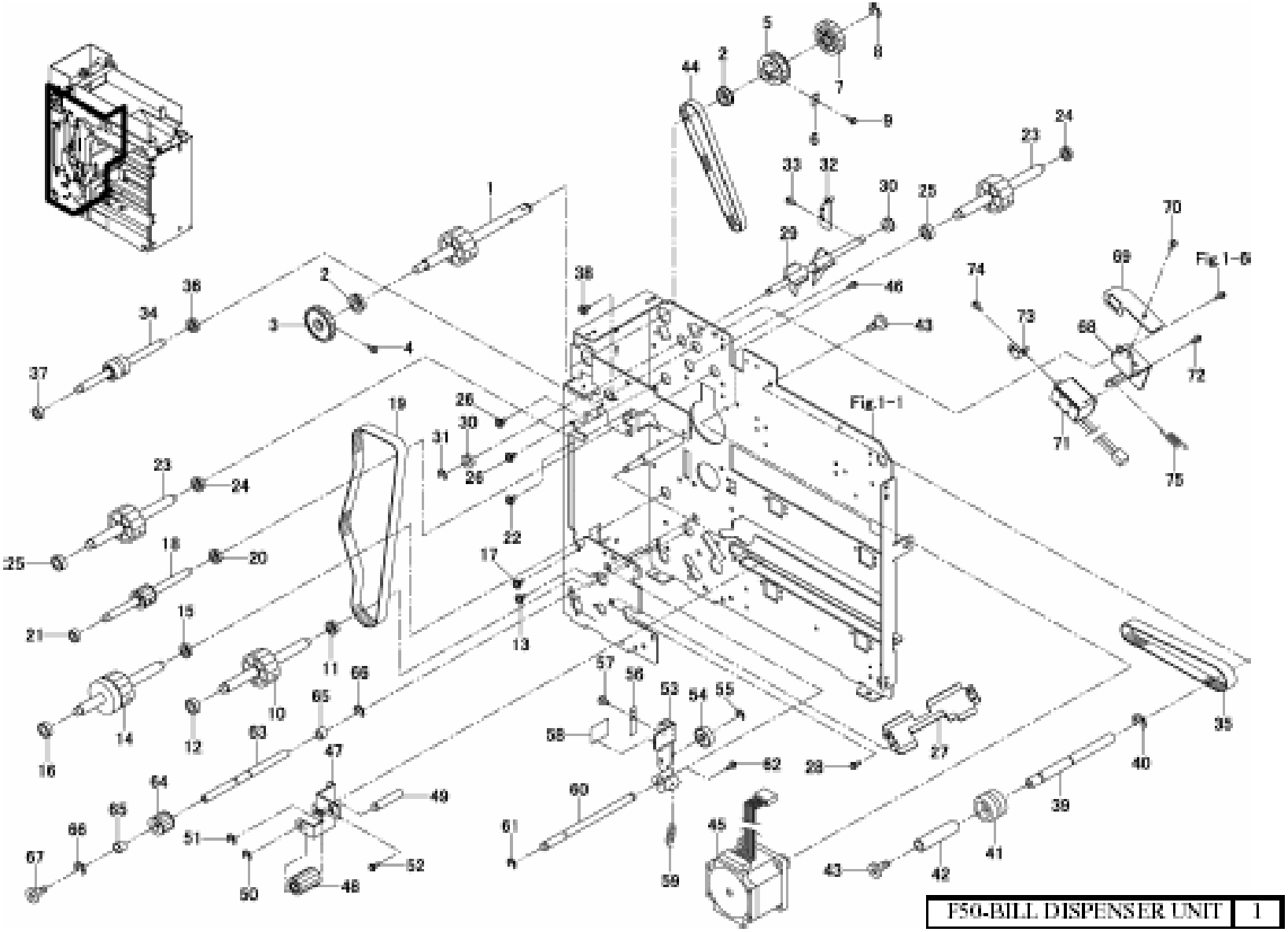
F50-BILL DISPENSER UNIT	1

INDEX No.	COMPOSITION& ▪ ▪▪▪▪▪QUANTITY							SP	PART NUMBER	PART NAME
-	1								KD11078-B002	F50-BDU
-	1								KD11078-B003	F50-BDU
-	1								KD11078-B012	F50-BDU
-			1						KD11078-D400	Frame assembly
-				1					KD11078-D420	Separator assembly
1					1				KD11078-Y420	Separator shaft
2					1				KD11078-E851	Pulley assembly
3					1				CA02953-4338	Timing belt
4					2				CA02286-Y949	Collar
5					1				KD11078-Y425	Separator bracket
6					2				F6-ER5-S	Retaining ring E
7					1				CA05119-E210	Separator assembly
8					1				CA05119-E270	One way clutch
9					1				F6-SW2N2R5-06111	Machine screw with washer
10					1				CA81003-3541	Bush
11					2				F6-ER3-S	Retaining ring E
12					1				KD11078-E251	Bill slider assembly
13					1				F6-SW2N2R5-06111	Machine screw with washer
14				2					CA82001-0110	Screw
-				1					KD11078-D435	Feed shaft assembly
15					1				KD11078-E435	Feed shaft assembly
16					2				CA02467-E085	Feed roller assembly
17					2				CA02950-0447	Retaining ring E
18				2					CA80409-0182	Bearing
19				1					F6-ER6-S	Retaining ring E
20				1					CA81206-0823	Poly slider
21				1					KD11078-E859	Pulley assembly
22				1					CA81206-0626	Poly slider
23				1					F6-ER4-S	Retaining ring E
-				1					KD11078-D440	Pick shaft assembly
24					1				KD11078-E441	Pick shaft assembly

FIGURE2 FRAME ASSEMBLY 2

INDEX No.	COMPOSITION& ▪ ▪▪▪▪▪QUANTITY							SP	PART NUMBER	PART NAME	
25					2				CA02300-Y630	Pick roller	
26				1					CA02953-2072	Timing belt	
27				1					CA98010-2908	Bush	
28				1					F6-ER4-S	Retaining ring E	
29				1					CA02953-3117	Timing belt	
30				1					KD11078-G581	Pulse motor	HPFM
31				2					F6-SW2N3-06111	Machine screw with washer	

FIGURE3 FRAME• ASSEMBLY 3



F50-BILL DISPENSER UNIT	1

INDEX No.	COMPOSITION& QUANTITY	SP	PART NUMBER	PART NAME
-	1		KD11078-B002	F50-BDU
-	1		KD11078-B003	F50-BDU
-	1		KD11078-B012	F50-BDU
-	1		KD11078-D400	Frame assembly
1	1		KD11078-E410	Shaft 1 assembly
2	2		CA80409-0182	Bearing
3	1		D860-5031-X644	Knob
4	1		F6-SW3N2R5-08111	Machine screw with washer
5	1		KD11078-Y857	Pulley
6	1		CA02467-Y066	Metal fitting
7	1		KD11070-Y140	Gear
8	1		F6-ER5-S	Retaining ring E
9	1		F6-SW3N3-08111	Machine screw with washer
10	1		KD11078-E412	Shaft 3 assembly
11	1		CA80409-0153	Bearing
12	1		CA80409-0062	Bearing
13	1		CA81002-1341	TP screw
14	1		KD11078-E415	Thickness shaft assembly
15	1		CA80409-0153	Bearing
16	1		CA80409-0062	Bearing
17	1		CA81002-1341	TP screw
18	1		KD11078-E411	Shaft 2 assembly-1
19	1		CA02953-4224	Timing belt
20	1		CA80409-0153	Bearing
21	1		CA80409-0053	Bearing
22	1		CA81002-1341	TP screw
23	2		KD11078-E412	Shaft 3 assembly
24	2		CA80409-0153	Bearing
25	2		CA80409-0062	Bearing
26	2		CA81002-1341	TP screw

FIGURE3 FRAME ASSEMBLY 3

INDEX No.	COMPOSITION& QUANTITY	SP	PART NUMBER	PART NAME	
54	1		CT-625ZZ-ST-KOYO	Bearing	
55	1		F6-ER4-S	Retaining ring E	
56	1		KD11078-Y467	Scraper	
57	1		CA81002-1341	TP screw	
58	1		CA92001-1142	Label	
59	1		CA81003-0628	Spring	
60	1		KD11078-Y470	Thickness shaft	
61	2		F6-ER4-S	Retaining ring E	
62	1		F6-SW2N3-08111	Machine screw with washer	
-	1		KD11078-D575	Shaft assembly	
63	1		KD11078-Y575	Shaft	
64	1		KD11078-E851	Pulley assembly	
65	2		CA02284-Y512	Collar	
66	2		F6-ER5-S	Retaining ring E	
67	2		CA82001-0110	Screw	
-	1		KD11078-D525	MG bracket assembly	
68	1		KD11078-Y527	MG bracket	
69	1		KD11078-Y528	Stopper	
70	1		F6-SW2N3-05111	Machine screw with washer	
71	1		KD54001-0342	Solenoid	RJMG
72	2		F6-SW2N2R6-05111	Machine screw with washer	
73	1		KD11078-Y532	MG rink	
74	1		F6-SW2N3-06111	Machine screw with washer	
75	1		CA81003-0576	Spring	

INDEX No.	COMPOSITION& QUANTITY	SP	PART NUMBER	PART NAME	
27	1		KD11078-Y430	Guide	
28	2		F6-SW2N3-06111	Machine screw with washer	
29	1		KD11078-E445	Switch shaft assembly	
30	2		CA81001-0730	Bush	
31	1		F6-ER4-S	Retaining ring E	
32	1		KD11078-E448	Switch lever assembly	
33	1		F6-SW2N2R5-06111	Machine screw with washer	
34	1		KD11078-E450	Shaft 2 assembly-2	
35	1		CT-10-JL-210-1.0-MITSUBOSI	Flat belt	
36	1		CA80409-0153	Bearing	
37	1		CA80409-0053	Bearing	
38	1		CA81002-1341	TP screw	
-	1		KD11078-D450	Shaft 4 assembly	
39	1		KD11078-Y450	Shaft 4	
40	1		F6-ER6-S	Retaining ring E	
41	1		D860-6107-W828	Pulley assembly	
42	1		D860-6108-Y190	Collar	
43	2		CA82001-0110	Screw	
44	1		CA02953-3120	Timing belt	
45	1		KD11078-G580	Stepping motor	SUCM
46	2		F6-SW2N3-08111	Machine screw with washer	
-	1		KD11078-D455	Tension bracket assembly	
47	1		KD11078-Y454	Tension bracket	
48	1		KD11078-Y453	Pulley	
49	1		KD11078-Y452	Tension shaft	
50	1		F6-ER4-S	Retaining ring E	
51	1		F6-ER4-S	Retaining ring E	
52	1		F6-SW2N3-06111	Machine screw with washer	
-	1		KD11078-D460	Thickness bracket assembly	
53	1		KD11078-E460	Thickness bracket assembly	

FIGURE3 FRAME ASSEMBLY 3

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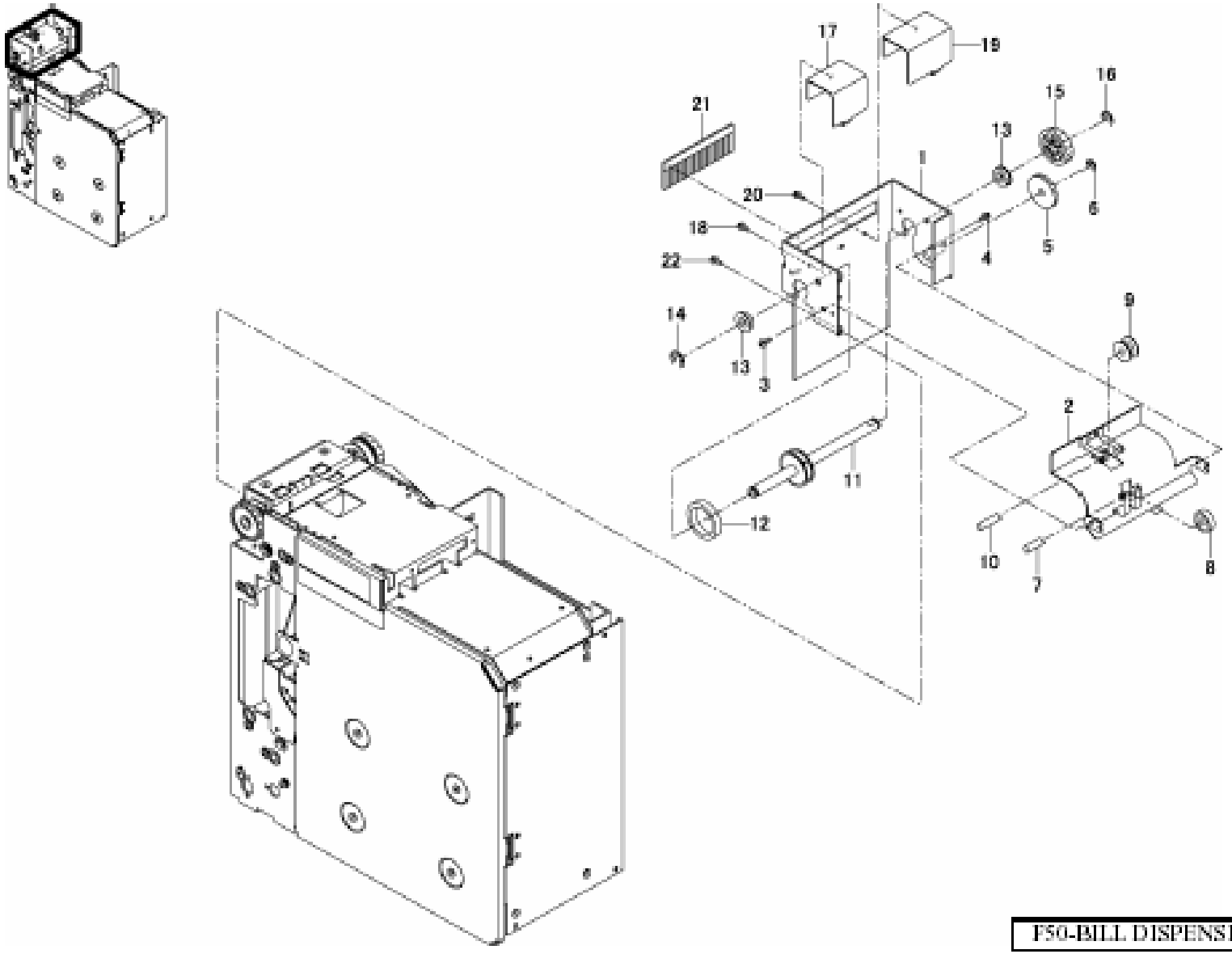
FIGURE7 EXTERIOR TRAY UNIT



F50-BILL DISPENSER UNIT	1

INDEX No.	COMPOSITION& ▪ ·····QUANTITY								SP	PART NUMBER	PART NAME	DESCRIPTION
-	1									KD11078-B003	F50-BDU	
-		1								KD11078-D703	Exterior tray unit	For KD11078-B003
1			1							KD11078-E733	Frame assembly	
2			1							KD11078-E737	Guide assembly	
3			1							F6-SW2N3-06111	Machine screw with washer	
4			1							F6-SBD3-06111	Screw	
5			1							CA02285-Y342	Gear	
6			1							F6-ER4-S	Retaining ring E	
7			1							KD11078-Y179	Shaft	
8			1							CA80409-0059	Bearing	
9			1							KD11078-Y750	Roller	
10			1							KD11078-Y773	Shaft	
11			1							KD11078-E706	Tray shaft assembly	
12			1							CA05102-Y299	Rubber roller	
13			2							CA81001-0731	Bush	
14			1							F6-ER6-S	Retaining ring E	
15			1							KD11070-Y140	Gear	
16			1							F6-ER5-S	Retaining ring E	
17			1							KD11078-Y730	Guide	
18			1							F6-SW2N3-06111	Machine screw with washer	
19			1							KD11078-Y731	Guide	
20			1							F6-SW2N3-06111	Machine screw with washer	
21			1							KD11078-Y756	Charge eliminating brush	
22		2								F6-SW2N4-08111	Machine screw with washer	

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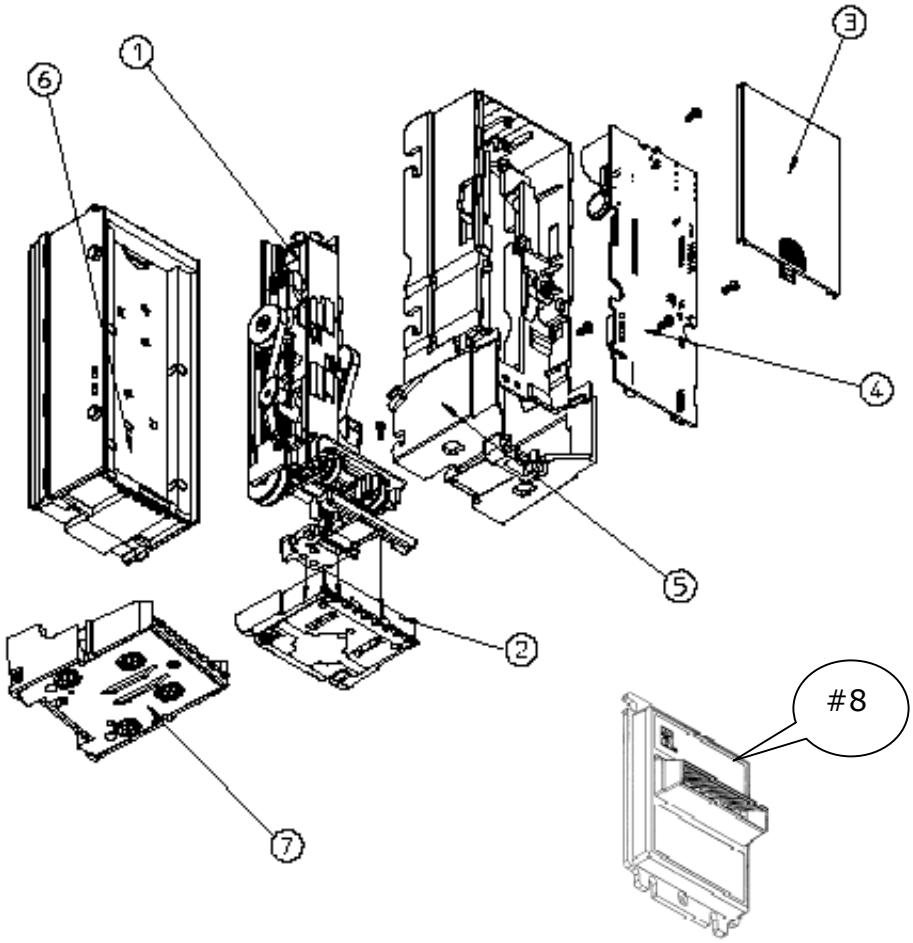
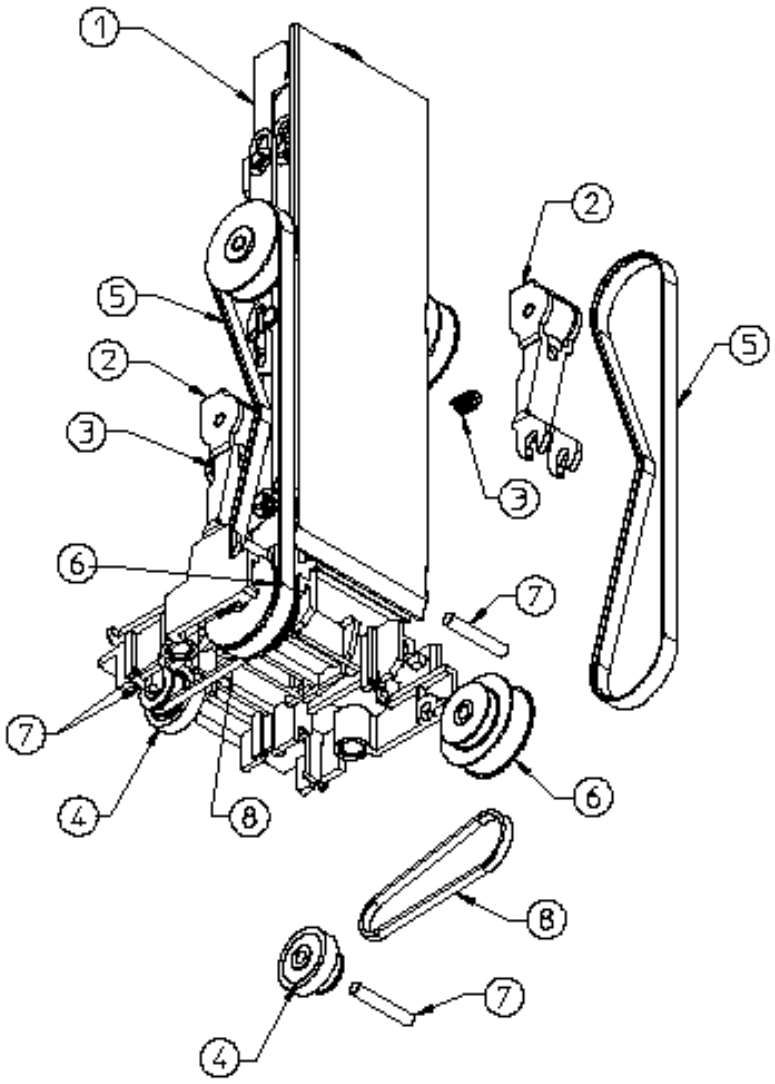
MARS AE2600 SERIES 24VDC PARTS BREAKDOWN



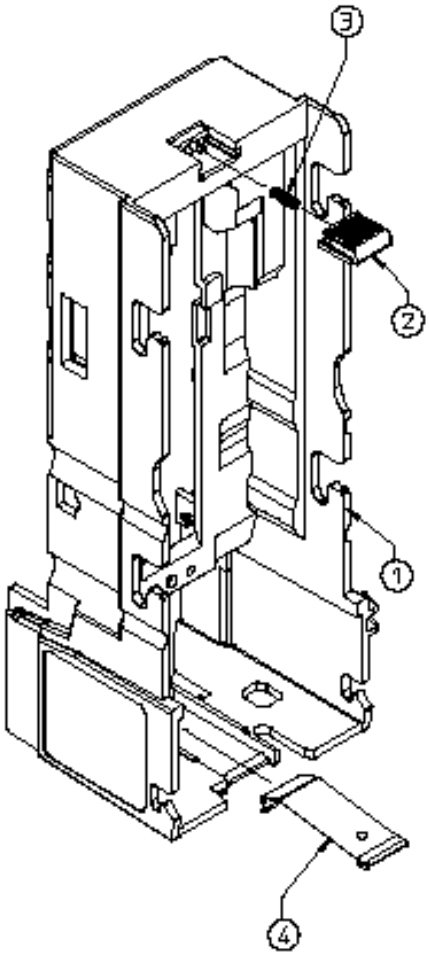
PICTURE #	PART #	DESCRIPTION
#1	AE93-1-1	Stacker/Drive Assembly Kit
#2	AE93-1-2	Sensor Housing Assy, Complete
#3	AE93-1-3	Control Board Cover, Plastic
#4	AE91-1-4	24VDC Logic Board
#5	AE93-1-5	Main Chassis, Plastic
#6	AC1045	500 Stacker
#7	AE93-1-7	LED Housing Assy, Complete
#8	AE93-1-8	Black Front Bezzle, Plastic
#9	AE93-1-9	Metal Bezzle Support Plate (**NOT SHOWN)**

CONTINUED



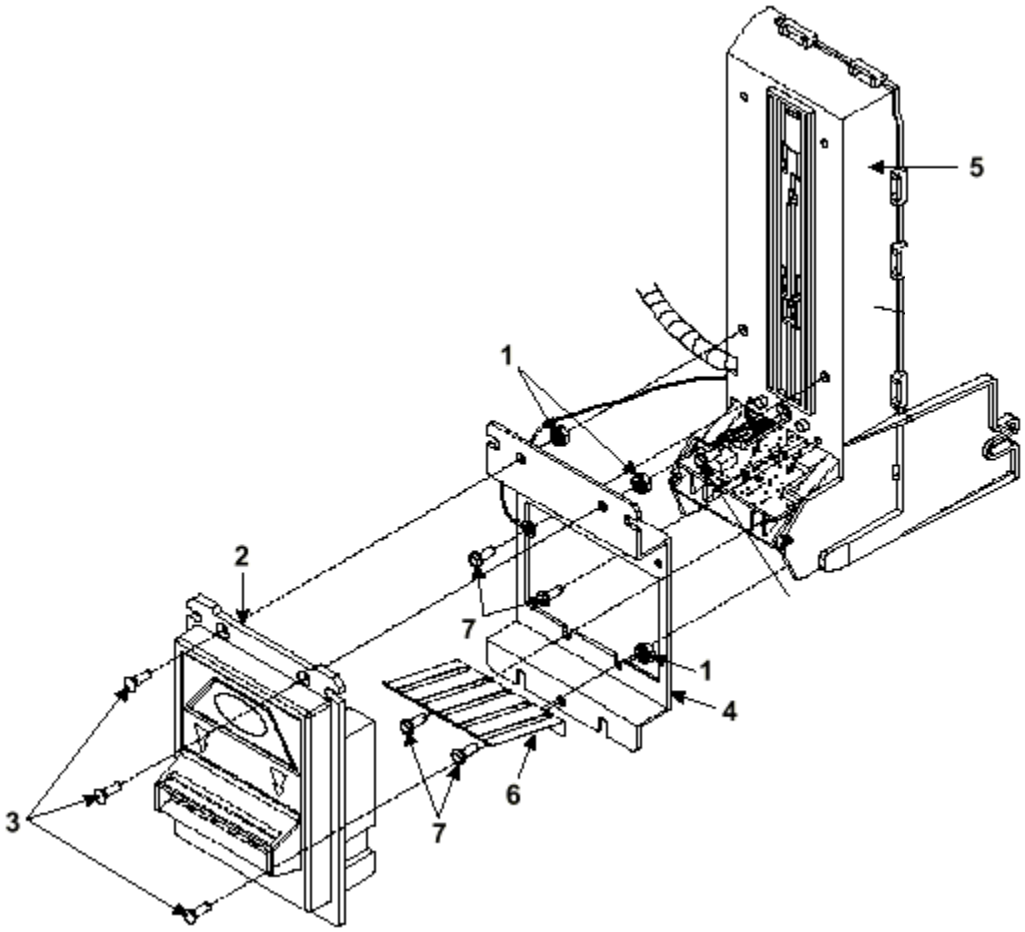
PICTURE #	PART #	DESCRIPTION
#1	AE93-2-1	Gearbox Assy
#2	AE93-2-2	Tension Assy
#3	AE93-2-3	Tension Spring
#4	AE93-2-4	Tire/Wheel Assy
#5	AE93-2-5	Belt, Timing, (1 of 2)-143 Teeth
#6	AE93-2-6	Pulley, Compound
#7	AE93-2-7	Shaft, Pulley
#8	AE93-2-8	Belt, Timing, (1 of 2)-56 Teeth

CONTINUED



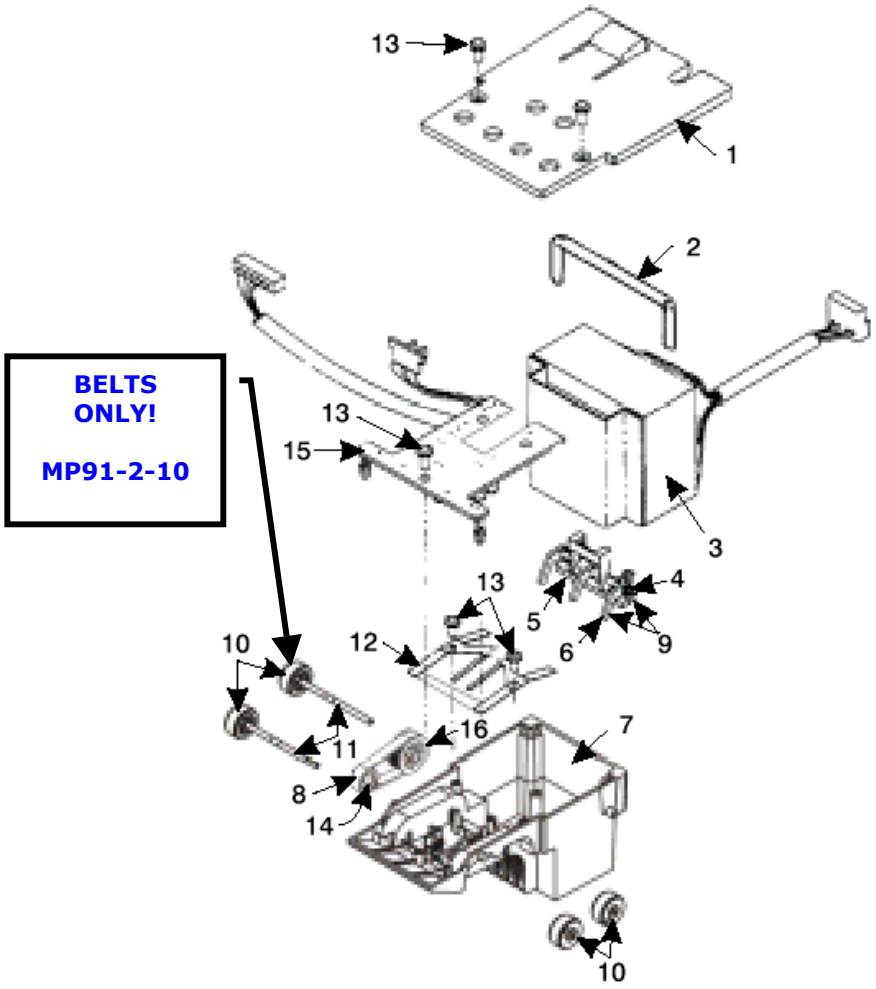
PICTURE #	PART #	DESCRIPTION
#1	AE93-1-5	Main Chassis, Plastic
#2	AE93-3-2	Stacker Latch, Blue
#3	AE93-3-3	Spring, Stacker Latch
#4	AE93-3-3	Lower Housing Lift Spring

COINCO PARTS LIST
MOUNTING ASSEMBLY PARTS BREAKDOWN



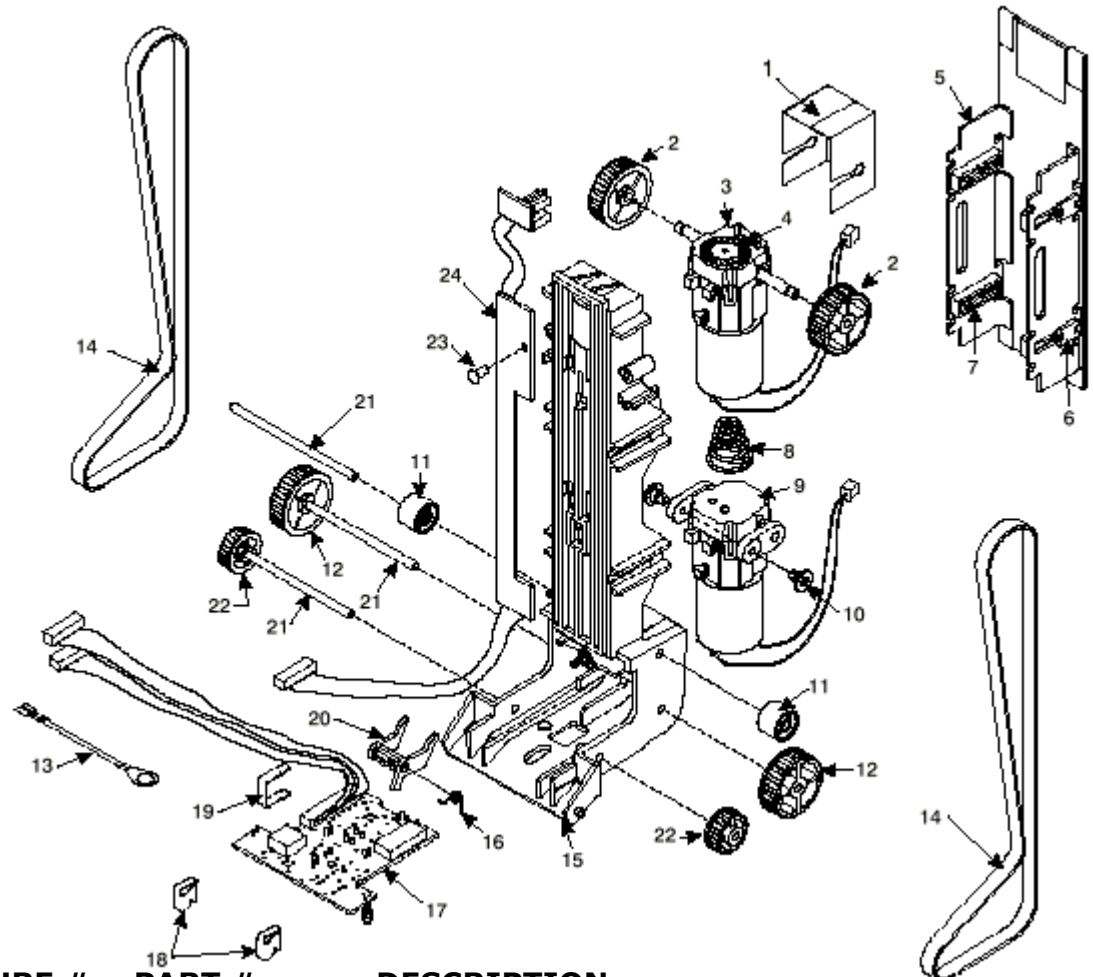
PICTURE #	PART #	DESCRIPTION
#1	MP90-1-1	Machine Screw
#2	MP91-1-2	"Snack Mask" Black Plastic
#3	MP90-1-3	Machine Screw
#4	MP90-1-4	Main Frame, Plastic
#5	MP91-1-5	Mask Gold Mounting Bracket
#6	MP90-1-6	Bill grounding spring
#7	MP91-1-7	Machine Nut

COINCO PARTS BREAKDOWN



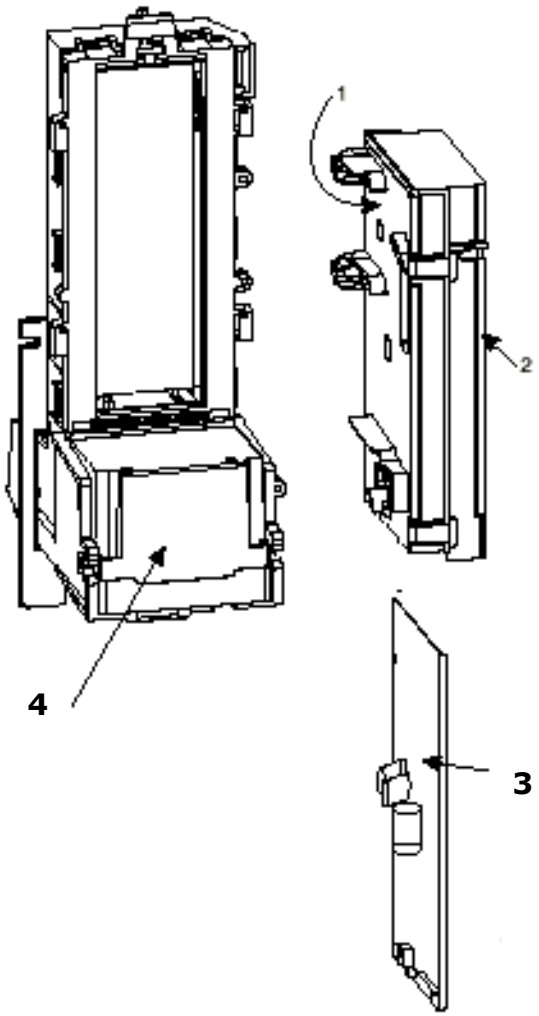
PICTURE #	PART #	DESCRIPTION
#1	MP90-2-1	Bottom Lower Housing Cover
#2	MP90-2-2	Transformer holding hose
#3	MP90-2-3	120VAC Transformer
#4	MP90-2-4	Lower Spring, Anti-Cheat Lever
#5	MP91-2-5	Lower Mounting, Anti-Cheat Lever
#6	MP90-2-6	Lower Anti-Cheat Lever
#7	MP90-2-7	Lower Housing Assembly, Complete
#8	MP90-2-8	Belt, Center
#9	MP90-2-9	Lower Anti-Cheat Assembly, Complete
#10	MP90-2-10	Plastic Wheels & Rubber Belts
#10	**MP91-2-10**	**Rubber Belts ONLY (Each)**
#11	MP90-1-11	Shaft, Drive
#12	MP90-2-12	Spring, MAG
#13	MP90-2-13	Screw, #4, Plastic
#14	MP90-2-14	Roller, Idler
#15	MP91-2-15	Sensor Board, Lower
#16	MP91-2-16	Pulley & Hub Assembly, Complete

COINCO PARTS BREAKDOWN



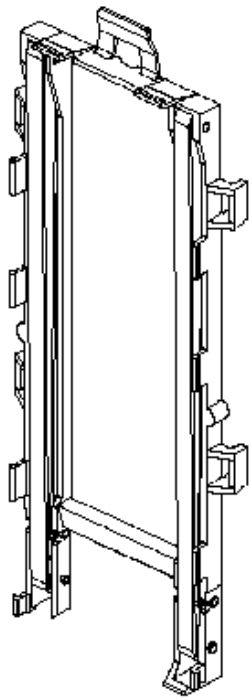
PICTURE #	PART #	DESCRIPTION
#1	MP90-3-1	Dust Cover
#2	MP90-3-2	Upper Transport & Hub Assembly, Complete
#3	MP91-3-3	Motor, Transport & Gear Assembly Complete
#4	MP90-3-4	Wheel, Encoder
#5	MP90-3-5	Stacker, Push-Plate Assembly
#8	MP90-3-8	Spring, Belt Tension
#9	MP90-3-9	Motor, Stacker Assembly Complete
#10	MP90-3-10	Pulley, Idler
#11	MP90-3-11	Lower Transport Pulley & Hub Assembly
#13	MP90-3-13	Belt, Upper Housing
#14	MP90-3-14	Frame, Upper Housing
#15	MP91-3-15	Sensor Board, Upper Housing
#16	MP90-3-16	Upper Board Clip
#17	MP90-3-17	Wire Clip
#18	MP90-3-18	Shaft, Pulley
#19	MP90-3-19	Shaft, Wheel
#21	MP90-3-21	Board, Stacker

COINCO PARTS BREAKDOWN



INTERMEDIATE RAME ASSEMBLY

MP90-4-IF



PICTURE #	PART #	DESCRIPTION
#1	MP90-4-1	Lid, Logic board Box
#2	MP91-4-2	Body, Logic board Box
#3	MP92-4-3	Main Logic Board
#4	MP90-4-4	Sticker, Serial Number / Warranty
#5	MP90-4-IF	Intermediate Frame with Bearings

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